c.1

Pacific Islands Fisheries Science Center

Fishery Statistics of the Western Pacific

Volume 20

Territory of American Samoa (2003)
Commonwealth of the Northern Mariana Islands (2003)
Territory of Guam (2003)
State of Hawaii (2003)

Compiled by

David C. Hamm, Nathan T. S. Chan, and Craig J. Graham

LIBRARY
Pacific Islands Fisheries Science Center
2570 Dole St.
Honolulu, Hawaii 96822-2396

May 2005

Administrative Report H-05-01

About this report

Pacific Islands Fisheries Science Center Administrative Reports are issued to promptly disseminate scientific and technical information to marine resource managers, scientists, and the general public. Their contents cover a range of topics, including biological and economic research, stock assessment, trends in fisheries, and other subjects. Administrative Reports typically have not been reviewed outside the Center. As such, they are considered informal publications. The material presented in Administrative Reports may later be published in the formal scientific literature after more rigorous verification, editing, and peer review.

Other publications are free to cite Administrative Reports as they wish provided the informal nature of the contents is clearly indicated and proper credit is given to the author(s).

Administrative Reports may be cited as follows:

> *Author. Date. Title*. Pacific Islands Fish. Sci. Cent., Natl. Mar. Fish. Serv., NOAA, Honolulu, HI 96822-2396. Pacific Islands Fish. Sci. Cent. Admin. Rep. H-*XX-YY*, *xx* p.

For further information direct inquiries to

Chief, Scientific Information Services
Pacific Islands Fisheries Science Center
National Marine Fisheries Service
National Oceanic and Atmospheric Administration
U.S. Department of Commerce
2570 Dole Street
Honolulu, Hawaii 96822-2396

Phone: 808-983-5386
Fax: 808-983-2902

NMFS Honolulu Library
00000000004300

PIFSC
ADMIN
REP
H
05-01
C.1

Pacific Islands Fisheries Science Center
Administrative Report H-05-01

Fishery Statistics of the Western Pacific

Volume 20

Territory of American Samoa (2003)
Commonwealth of the Northern Mariana Islands (2003)
Territory of Guam (2003)
State of Hawaii (2003)

Compiled by

David C. Hamm,[1] Nathan T. S. Chan,[2] and Craig J. Graham[2]

[1]NOAA Fisheries
Pacific Islands Fisheries Science Center
2570 Dole Street, Honolulu, Hawaii 96822-2396

[2]Joint Institute for Marine and Atmospheric Research
University of Hawaii, Manoa
2570 Dole Street, Honolulu, Hawaii 96822-2396

May 2005

CONTENTS

		Page
Introduction		1
	Progress	2
	Precautions	2
	Contents	3
	Definitions	3
	Graphics	4
Section A:	**American Samoa**	
	Introduction	A.1
	Special Note on Data Revisions	A.2
	Data Collecting System	A.2
	Data Processing System	A.6
	Data Quality and Cross Validation: American Samoa Longline Example	A.8
	Data Reporting System	A.9
	Interpretation of Statistics	A.14
	Tables	A.16
	Figures	A.30
Section B:	**Commonwealth of the Northern Mariana Islands**	
	Introduction	B.1
	Data Collecting System	B.2
	Data Processing System	B.3
	Data Reporting System	B.3
	Tables	B.6
	Figures	B.19
Section C:	**Guam**	
	Introduction	C.1
	Commercial Landings Data Collecting System	C.2
	Commercial Landings Data Processing System	C.2
	Commercial Landings Data Reporting System	C.3
	Interpretation of Statistics	C.5
	Tables	C.6
	Figures	C.20
Section D:	**State of Hawaii**	
	Introduction	D.1
	Data Collecting System	D.2
	Data Processing System	D.3
	Data Reporting System	D.3
	Tables	D.8
	Figures	D.34

PREFACE

Over the years, the demand for data and information concerning marine fisheries has greatly increased. To help meet these increased needs in the central and western Pacific areas, the National Marine Fisheries Service's (NMFS) Southwest Fisheries Science Center (SWFSC) initiated the Western Pacific Fishery Information Network (WPacFIN) to assist Pacific island fisheries agencies in upgrading their data collecting, processing, and reporting capabilities.

In 1982, these agencies formed a Fisheries Data Coordinating Committee (FDCC) and a FDCC Technical Subcommittee to help guide, coordinate, and monitor all of their fisheries data-related activities. Significant progress has been made by all participating agencies, particularly in the areas of upgrading data collecting and processing systems.

In a major step to improve and coordinate the data reporting and distribution systems of the agencies, in May 1985 the FDCC agreed to produce a combined document reporting each island's major fisheries statistics. Production of the document would be the responsibility of the FDCC Technical Subcommittee and would be coordinated by the WPacFIN Program Manager. Each agency would supply the data required to produce the tables and graphs for its respective chapter, and central WPacFIN staff would produce and distribute the document as part of the Administrative Report Series.

In April 2003, NMFS created a new Pacific Islands Region comprised of the Pacific Islands Fisheries Science Center (PIFSC, formerly SWFSC's Honolulu Laboratory) and the Pacific Islands Regional Office (PIRO, formerly SWRO's Pacific Islands Area Office). As such, this report is now affiliated with PIFSC rather than SWFSC.

This is the twentieth volume in the series "Fishery Statistics of the Western Pacific" and contains year 2003 summaries of commercial landings for American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and Hawaii. As with previous volumes, it is divided into sections, one each for the major island areas.

INTRODUCTION

This report is compiled by fisheries agencies participating in the Western Pacific Fishery Information Network (WPacFIN, formerly referenced as WPACFIN), a collaboration between fisheries agencies in Hawaii, Guam, the Commonwealth of the Northern Mariana Islands (CNMI), and American Samoa. WPacFIN's goal is to improve the availability and dissemination of fisheries information. Participating groups include

American Samoa	Department of Marine and Wildlife Resources (DMWR)
	PIRO Fisheries Monitoring Field Office, American Samoa
Commonwealth of the Northern Mariana Islands (CNMI)	Division of Fish and Wildlife (DFW)
Guam	Division of Aquatic and Wildlife Resources (DAWR)
	Bureau of Statistics and Plans (BSAP; formerly Department of Commerce)
Hawaii	Hawaii Division of Aquatic Resources (HDAR)
	Pacific Islands Fisheries Science Center (PIFSC)
	Pacific Islands Regional Office (PIRO)
	Western Pacific Regional Fishery Management Council

WPacFIN and these groups collect, computerize, edit, and process data from the islands. WPacFIN staff at the Pacific Islands Fisheries Science Center then use these data to create the summaries and graphs found in this document.

Data from DMWR, DAWR, and DFW are supplied on portable computer media in established WPacFIN database formats. Data for Hawaii are provided by HDAR through a dial-in telecommunications link. Once data from all agencies are put into the proper format on the central WPacFIN computer and appropriate edit, adjustment, and verification procedures are completed, summary reports and files are produced using software developed by WPacFIN staff. Graphs are produced using commercially available software.

PROGRESS

In 1981 when WPacFIN began assisting agencies in improving their data collecting and processing systems, only the State of Hawaii had computerized processing. By mid-1982, fisheries offices in American Samoa, Guam, and the CNMI were using WPacFIN-supplied computers to process data. Since that time, these agencies have made significant improvements to their data collecting systems and have established sound, automated data processing systems. Most agencies can now provide preliminary fishery statistics to WPacFIN within 45 days of the date of collection.

In particular, the HDAR has significantly improved its procedures for editing, updating, and processing Hawaii's data; it has reduced the lag time in data processing from about 2.5 years to less than 3 months for most data. The biggest problems still facing HDAR in improving its data systems are reducing the delinquency of fishermen reporting and implementing a validation system to ensure that what gets reported by fishermen is accurate. A Dealer Reporting System has been implemented to augment the Fishermen's Reporting System and has helped address this issue, and efforts are continuing to develop and implement other improvements to the Hawaii fisheries monitoring programs.

PRECAUTIONS

Data collecting and processing systems vary greatly among Pacific island fisheries agencies. Although much standardization has taken place and is continuing, there remain unique aspects of each island's systems based on local needs and capabilities.

When using summaries contained in this report, especially if making comparisons, one should keep in mind the nature of the systems used to produce the data. For example, Hawaii's commercial landings data are based on mandatory monthly reporting by fish dealers and licensed commercial fishermen as well as NMFS longline logbooks; CNMI's and Guam's data are based on voluntary reporting of major fish buyers using government-provided "trip-ticket" invoices, adjusted to represent 100% coverage, and are referenced as "Estimated Commercial Landings;" American Samoa's data are based on a complex integration of data from a boat-based creel survey and data expansion system for a portion of the fisheries, mandatory logbooks and a size-frequency sampling program for the longline fishery, and a mandatory trip ticket invoice reporting system for local sales. Each system has advantages and disadvantages, and the user should be aware of them when comparing or interpreting data. In addition, WPacFIN staff and the island agencies are continually improving the data collecting and processing systems in each area. Because the improvements usually result in updates to the estimates of total and commercial landings, the data in this volume may not match exactly with data in previous volumes of this report series.

The user should also be aware that species assemblages vary among island groups, as do cultural preferences and principal fishing techniques and gear. Population size is of particular importance when interpreting the relative value and importance of the fisheries.

To help the user, explanations of the data collecting and processing systems are provided in each island's section.

CONTENTS

This document is divided into appendices by island group. Each section contains reports on the monthly and annual landings by species or species groups for the commercial fleet.

DEFINITIONS

In addition to the description of the systems and the monthly and annual reports, each section contains graphs of some of the summary fishery statistics of particular interest or importance to participating WPacFIN agencies. To graphically present the data, several categories have been defined for each island's fisheries. Because of differences in reporting systems and capabilities among the islands, species contained within each category may vary, but all categories are documented in each island's section. Overlap exists among some of the categories used for different graphs.

Note: Many of the species included in this report have been recategorized over the years. For example, the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the Pelagic Management Unit Species (PMUS) category. However, this FSWP volume will maintain the original species categorizations from previous volumes for comparative purposes. As such, tunas are kept in a separate category.

Categories used in the graphs include:

1. Fisheries Categories–These are combinations of species of similar ecological types, specifically pelagic, bottomfish, reef fish, and "other." "Other" includes groups that generally traverse these categories, such as certain sharks and jacks, or are not typically included in these groups, such as mullet and milkfish.

2. Pelagic Management Unit Species (PMUS)–The Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to place tunas under U.S. jurisdiction for management. The Fishery Management Plan for Pacific Pelagic Species was amended to reflect this change. However, this report series will continue to treat tunas as a separate category, and the PMUS category in this document includes only billfishes, wahoo, mahimahi, and oceanic sharks.

3. Bottom Fish Management Unit Species (BMUS)–Defined as the species of initial importance in the Fishery Management Plan for bottomfish and seamount fisheries, including the major deepwater snapper, grouper, emperor, and certain jacks.

4. Tunas–All the tuna species excluding wahoo. Historically this had been predominantly skipjack and yellowfin tunas in all areas, but with the growth of longline fisheries in Hawaii and American Samoa, bigeye and albacore tunas have become much more important or even predominant in recent years.

5. Other Tunas–The definition varies among the islands depending on the importance of each tuna species in the total landings. For Guam and the CNMI it remains the same and includes all tunas as defined above except skipjack and yellowfin tunas. In Hawaii and Samoa it also excludes bigeye and albacore tuna, and it includes only tuna with relatively minor landings.

6. Billfish–Combination of all marlin, sailfish, spearfish, and swordfish species.

GRAPHICS

Four types of graphs are provided with each island's data. Type I graphs present summary charts of the major species and species groups for 2003. Type II graphs are seasonality plots for the major species or species groups, showing the average weight landed during each month for all years combined. Type III graphs are time series plots of annual summary statistics to help visualize the variability among years. Type IV graphs are plots of monthly landings of some of the major commercially important species and document monthly fluctuations in landings of these species over the entire time series.

To access the most up-to-date data and charts, please visit the WPacFIN Website at <http://www.pifsc.noaa.gov/wpacfin>.

AMERICAN SAMOA 2003 FISHERY STATISTICS

Compiled by

American Samoa

Department of Marine and Wildlife Resources

and the

Western Pacific Fishery Information Network

May 2005

CONTENTS

	Page
Introduction	A.1
Special Note on Data Revisions	A.2
Data Collecting System	A.2
Data Processing System	A.6
Data Quality and Cross Validation: American Samoa Longline Example	A.8
Data Reporting System	A.9
Interpretation of Statistics	A.14
Tables	A.16
Figures	A.30

LIST OF AMERICAN SAMOA SUMMARY TABLES

Table	Title	Page
A-1	American Samoa Annual 2003 Estimated Commercial Landings	A.16
A-2	American Samoa January 2003 Estimated Commercial Landings	A.18
A-3	American Samoa February 2003 Estimated Commercial Landings	A.19
A-4	American Samoa March 2003 Estimated Commercial Landings	A.20
A-5	American Samoa April 2003 Estimated Commercial Landings	A.21
A-6	American Samoa May 2003 Estimated Commercial Landings	A.22
A-7	American Samoa June 2003 Estimated Commercial Landings	A.23
A-8	American Samoa July 2003 Estimated Commercial Landings	A.24
A-9	American Samoa August 2003 Estimated Commercial Landings	A.25
A-10	American Samoa September 2003 Estimated Commercial Landings	A.26
A-11	American Samoa October 2003 Estimated Commercial Landings	A.27
A-12	American Samoa November 2003 Estimated Commercial Landings	A.28
A-13	American Samoa December 2003 Estimated Commercial Landings	A.29

LIST OF AMERICAN SAMOA FIGURES

Figure	Title	Page
A-1-1	2003 Monthly Estimated Commercial Landings for Pelagic, Bottom, Reef, and Other Fish	A.30
A-1-2	2003 Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	A.30
A-1-3	2003 Monthly Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	A.31
A-1-4	2003 Monthly Estimated Commercial Landings of Albacore and Yellowfin Tunas	A.31
A-1-5	2003 Monthly Estimated Commercial Landings of Skipjack, Bigeye, and Other Tunas	A.32
A-2-1	1982-2003 Average Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	A.32
A-2-2	1982-2003 Average Monthly Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	A.33
A-2-3	1982-2003 Average Monthly Estimated Commercial Landings of Surgeonfish (Tangs), Bluelined Snapper, and Spiny Lobster	A.33
A-2-4	1982-2003 Average Monthly Estimated Commercial Landings of Albacore and Yellowfin Tunas	A.34
A-2-5	1982-2003 Average Monthly Estimated Commercial Landings of Skipjack, Bigeye, and Other Tunas	A.34
A-3-1	1982-2003 Annual Estimated Commercial Landings for Pelagic, Bottom, Reef, and Other Fish	A.35
A-3-2	1982-2003 Annual Estimated Commercial Landings (Pounds and Dollars)	A.35
A-3-3	1982-2003 Annual Estimated Commercial Landings for Tunas, PMUS, and BMUS Landings	A.36
A-3-4	1982-2003 Annual Estimated Commercial Landings for Wahoo, Mahimahi, and Billfish	A.36
A-3-5	1982-2003 Annual Estimated Commercial Landings for Albacore and Yellowfin Tunas	A.37
A-3-6	1982-2003 Annual Estimated Commercial Landings for Skipjack, Bigeye, and Other Tunas	A.37

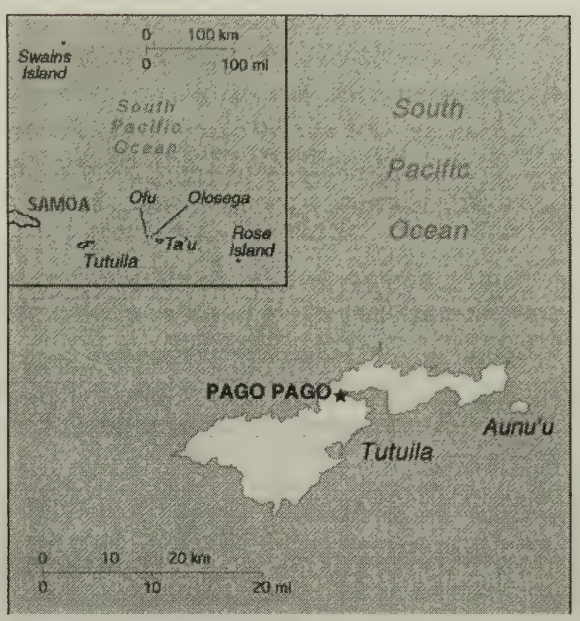
LIST OF AMERICAN SAMOA FIGURES (cont)

Figure	Title	Page
A-4-1	1982-2003 Monthly Estimated Commercial Landings of Wahoo	A.38
A-4-2	1982-2003 Monthly Estimated Commercial Landings of Mahimahi	A.38
A-4-3	1982-2003 Monthly Estimated Commercial Landings of Blue Marlin	A.39
A-4-4	1982-2003 Monthly Estimated Commercial Landings of Albacore	A.39
A-4-5	1982-2003 Monthly Estimated Commercial Landings of Skipjack Tuna	A.40
A-4-6	1982-2003 Monthly Estimated Commercial Landings of Yellowfin Tuna	A.40
A-4-7	1982-2003 Monthly Estimated Commercial Landings of Bigeye Tuna	A.41
A-4-8	1982-2003 Monthly Estimated Commercial Landings of Blue-lined Snapper	A.41
A-4-9	1982-2003 Monthly Estimated Commercial Landings of Spiny Lobster	A.42
A-4-10	1982-2003 Monthly Estimated Commercial Landings of Surgeonfish (Tangs)	A.42

AMERICAN SAMOA 2003 FISHERY STATISTICS

INTRODUCTION

Location: 14°S latitude, 170°W longitude
Islands: Tutuila, Aunu`u, the Manu`a Islands (Ofu, Olesaga, Ta`u), Rose Atoll (uninhabited), and Swain's Island (sparsely populated)
Population: 57,900, 80 % on Tutuila; (*The World Factbook*, 2004)
Economy: tuna industry



American Samoa Source: <http://www.cia.gov/cia/publications/factbook/geos/aq.html >; *The World Factbook*

The American Samoa Department of Marine and Wildlife Resources (DMWR; formerly the Office of Marine Resources) is located near Pago Pago on Tutuila and has been collecting commercial fisheries data from the Tutuila fleet since the early 1970s. In 1983 it extended its coverage to the Manu`a Islands, and in 1985 DMWR modified its data collection programs to include recreational and subsistence fisheries data.

American Samoa's domestic fisheries have typically been small-boat, one-day fisheries using primarily 28-to 32-foot long, outboard-engine-powered catamarans called *alias* (pronounced *ah-lee-ahs).* Traditionally, trolling and bottomfishing were the major methods of fishing, and a little spearfishing, netting, and vertical longlining were done occasionally. Beginning in about mid-1995 some of the traditional alias began converting to horizontal longlining. During 1996 horizontal longlining became the largest fishery in American Samoa based on total landed weight of the catch, even though only about one-third of the fleet had converted to this method. Over the next few years the fleet grew rapidly with the addition of new alias up to about 38 feet in length and, more significantly, with the addition of other larger mono-hull vessels that fished much longer trips. The primary target species is albacore tuna, but the fishery has also resulted in significant increases in landings of yellowfin tuna, wahoo, blue marlin, mahimahi, and some other incidentally caught species.

During 2003, the various fishery monitoring programs in American Samoa identified 82 active vessels — 77 home ported on Tutuila and 5 in the Manu'a Islands. Many of these vessels participated in more than one fishery, and 64 of the Tutuila boats (including 32 vessels which were over 50 feet in length) did at least some longlining. Of the 82 total boats, 19 participated in the troll and bottomfish fisheries and 3 were used in other forms of fishing activities. On average, the alia fleet on Tutuila consisted of 3-man crews, fished 7 hours, and caught about 261 pounds of fish; the Manu'a-based fleet typically had 3-man crews, fished

about 5 hours and landed 113 pounds of fish. Essentially all of the longlining was based out of Tutuila, where the majority of the catch was off-loaded to the canneries.

SPECIAL NOTE ON DATA REVISIONS

Significant changes in the fisheries occurred in the mid-1990s with the development of the longline fishery and a nighttime, boat-based scuba spearfishing fishery. Because of the nature of these fisheries, biases began creeping into the effort-counting and interviewing processes of the DMWR surveys. By 1997 WPacFIN staff discovered the problems, and modifications to survey techniques were implemented by DMWR staff. It became clear by early 1998 that the algorithms used to expand the survey data and estimate for the total fishery also needed to be changed. The new data processing system that better handles the more complex nature of today's fisheries in American Samoa as detailed below has been completed and was used to reprocess the historical time series. This volume includes the results of this new improved algorithm, but additional data quality control procedures and algorithm enhancements are still being made that may cause small changes in subsequent reports.

DATA COLLECTING SYSTEM

The data collecting systems used by DMWR to monitor the changing fisheries of American Samoa have evolved considerably over the past 20 years. One common factor of all systems has been that they have relied heavily on personal contacts with the fishermen and on a significant amount of dockside monitoring and interviewing.

The major systems in place today include: 1) boat-based access-point creel surveys on Tutuila and the Manu`a Islands (Offshore Creel Survey System), which are the mainstay of the monitoring program; 2) a mandatory purchase receipt "trip ticket" system for fish businesses on Tutuila (Commercial Purchase System); 3) a vessel history and tracking system for all American Samoa vessels (Vessel Classification System); 4) a Daily Effort Census System for detailed tracking of the developing longline fishery; 5) a mandatory federal Longline Logbook System; 6) a Cannery Landings System to document all landings at the two canneries made by domestic and foreign vessels; and 7) a size frequency sampling program at the canneries. Data from all these major systems are used to develop the best available data for the complex and ever changing fisheries of American Samoa. More details of the first five data collection systems follow.

Commercial Catch Monitoring System. From 1982 to 1985, DMWR obtained catch statistics by interviewing commercial fishermen at the end of their trips and kept records of as much commercial fishing activity as possible. This data collection method was accurate for trips where interviews were conducted. However, it was very labor intensive, did not cover all trips, and did not include the small but growing recreational and subsistence fisheries.

Vessel Classification System. Beginning in the early 1980s, a vessel classification system was established to collect information on all vessels participating in any domestic fisheries. This system provides the following information on American Samoa vessels:

- Boat Name
- Registration Number
- Propulsion
- Length
- Beam
- Number of Engines
- Type of Use
- Trailered
- Number of Crew
- Depth
- Engine Type
- Fuel Type
- Material
- Horsepower
- Port
- Methods of fishing
- Federal Permit

Offshore Creel Survey System. In October 1985 a new creel survey sampling system was implemented on Tutuila to provide better coverage and statistics on all boat-based fisheries. This replaced the Commercial Catch Monitoring System. Soon afterwards similar monitoring programs were established in the Manu`a Islands, where the fishing fleets are centrally located and small enough for statistics to be collected for nearly every trip. The surveyors in the Manu`a Islands send their monitoring forms to DMWR in Tutuila for processing. The Manu`a statistics are entered and compiled on a monthly basis and are adjusted by an estimated percent coverage factor that is usually 100%.

The details of the Tutuila boat-based fishery sampling program have changed over the years to accommodate changes in the fisheries; but it is still a systematic, random sampling program that stratifies sampling by type of day (either weekday or weekend/holiday) and by fishing method. For logistical and cultural reasons, Sundays are no longer sampled as effort is extremely low and not similar to other weekend/holiday-type days.

DMWR staff normally sample 2 weekdays and 1 weekend/holiday per week. During survey days, counts of total participation are collected, and as many returning vessels as possible are interviewed for catch, effort, and biological samples. Tutuila is divided into six sample areas, five of which are sampled. It is assumed that the non-sampled area is similar to the sampled areas in fishing activity and success rate. Furthermore, it is assumed that the fishermen interviewed are representative of the entire fishing population and that they give accurate information.

Unless contrary information is available from dockside questioning of knowledgeable persons, a boat is assumed to be "out fishing" if its trailer is at a boat ramp or the boat is missing from its normal berthing area during the 18 hour survey day. The

following participation information is recorded for all boats determined to be "out fishing." The participation data is expanded to estimate the total number of fishing trips in Tutuila.

- Sample Date
- Boat Name
- 3 Observation Times
- Type of Day
- Fishing Method
- Sample Area

The remaining data items listed below are collected on each boat for which an interview is successfully completed.

- Interview Time *
- Area fished
- Home island
- Total hours fished (trip length) *
- Number of fishermen
- Number of gear used
- Total trip weight in pounds *
- Species caught *
- Number of pieces for each species
- Disposition of species*
- Weight in pounds for each species *
- Condition of species if not whole
- Length of fish (converted to weight)
- Price per pound for each species

It is not always possible to obtain information on all the items listed. However, the ones marked with an asterisk (*) are considered essential for data expansion purposes. Also, identification and weight of each species are often not obtainable; in this case a code for species groupings (e.g., miscellaneous bottom fish) is used. The interview data is later expanded to estimate the total catch per fishing trips and other CPUE measures in Tutuila. The catch per trip estimate is multiplied by the number of trips estimate for each strata to get an estimate of the total catch for Tutuila.

Commercial Purchase System. For several decades the two canneries provided monthly summary statistics about their purchases of fish from all vessels, foreign and domestic. Then in September 1990, a Commercial Purchase (receipt book) System was instituted in which all businesses in Samoa that buy fish directly from fishermen were required by local law to submit a copy of their purchase receipts to DMWR. Receipt books are issued by DMWR to all fish markets, stores, hotels, and restaurants that resell fish, either whole of prepared. The following information is collected via these receipts.

- Invoice Date
- Invoice Number
- Buyer's Name
- Boat Name, Owner
- Area Fished
- Fishing Method
- Species bought
- Number of pieces for each species
- Weight in pounds for each species *
- Price per pound for each species

Federal Longline Logbook System and Daily Effort Census. In January 1996, in response to the developing longline fishery, a federal longline logbook system was implemented by NMFS. All longline fishermen are required to obtain a federal permit that requires them to submit logs containing detailed data on each of their sets and the resulting catch. From 1996 to 1999, the logbooks submitted by the local longliners were edited by the NMFS fisheries monitoring agent in Samoa for any missing data and were then sent to the NMFS Honolulu Lab (now the PIFSC) for further editing and data processing.

To improve monitoring of the fast-growing longline fishery, in July 1999 DMWR implemented a Daily Effort Census (DEC) for all federally permitted longline vessels. Six days a week, DMWR staff make two visits a day to ports where longline vessels move. The staff document whether each vessel on the list is "in port" or "out fishing." The DEC data are used to track the activity of each vessel and to help ensure all fishing log sheets are submitted by the fishermen. To further improve the quality and timeliness of the data, beginning in January 2000 logbook data collecting, editing, and processing has been done by DMWR in Samoa and is downloaded to NMFS periodically. The following information is recorded for each set these longline fishermen make:

- Set Date
- Vessel
- Date of Departure
- Port of Departure
- Date of Arrival
- Port of Arrival
- Observer on Board
- Target Species
- Bait Used
- Mainline Length
- No. of Hooks
- No. of Hooks/Float
- No. of Lightsticks Used
- Bird Catch Mitigation Measures
- Wind Detection
- Wave Height
- Sea Surface Temperature
- Wind Speed
- Begin Set Time
- Begin Set Latitude and Longitude
- End Set Time
- End Set Latitude and Longitude
- Haul Date
- Begin Haul Date
- Begin Haul Latitude and Longitude
- End Haul Time
- End Haul Latitude and Longitude
- No. of Pelagic Species kept
- No. of Pelagic Species released
- No. of Sharks finned
- No. of Sharks kept
- No. of Sharks released
- No. of Protected Species released alive
- No. of Protected Species released injured
- No. of Protected Species released dead

Logbook data are also compared with cannery unloading data for Samoa-based boats on a monthly basis to identify boats that unload at the canneries but did not turn in any longline logs or turn in just a part of the logs that they are required to.

The longline logbooks provide no information on the pounds caught or the disposition of fish caught by large longliners, which are not covered by the Offshore Creel

Survey. Beginning in April 2001, length data from South Pacific Regional Longline Port Sampling Forms were collected for Samoa-based longliners and converted to pounds to provide better estimates of the pounds per fish of fish caught by the large longliners. Disposition data were also entered in the comments section of these forms to provide sampled disposition data on the fish caught.

DATA PROCESSING SYSTEM

As the data collecting systems used by DMWR to monitor the fisheries in American Samoa have changed over the years, so have the data processing systems. Numerous versions of database and utility software and microcomputer systems have been used over the years to meet the growing demand for processing the collected data. Generally speaking, these changes, with their significant emphasis on improving data quality and their cross validation among systems, have made the data processing systems more robust, complex, and complete.

Several important principles have remained constant over time: 1) keep data processing close to the source of data collecting; 2) provide all of the needed software tools to ensure the quality of data; 3) make the systems user friendly and functional for the local staff; and 4) maintain as many standards as possible throughout the time series of data collected.

Typically, when upgrades (such as changes in expansion and reporting algorithms for the creel survey data and commercial landings data) have been made to data processing systems, the entire time series of data would be reprocessed using the same algorithms so that trends in the fisheries would remain as intact as possible. The annual and monthly estimated commercial landings data and the corresponding time series figures included in this report were produced with the versions of data processing systems in use in May 2001. To help the reader understand the origin of the data included in this report, a general description of these processes follows. It does not include the details on many minor changes that have occurred throughout the evolutionary history of these systems.

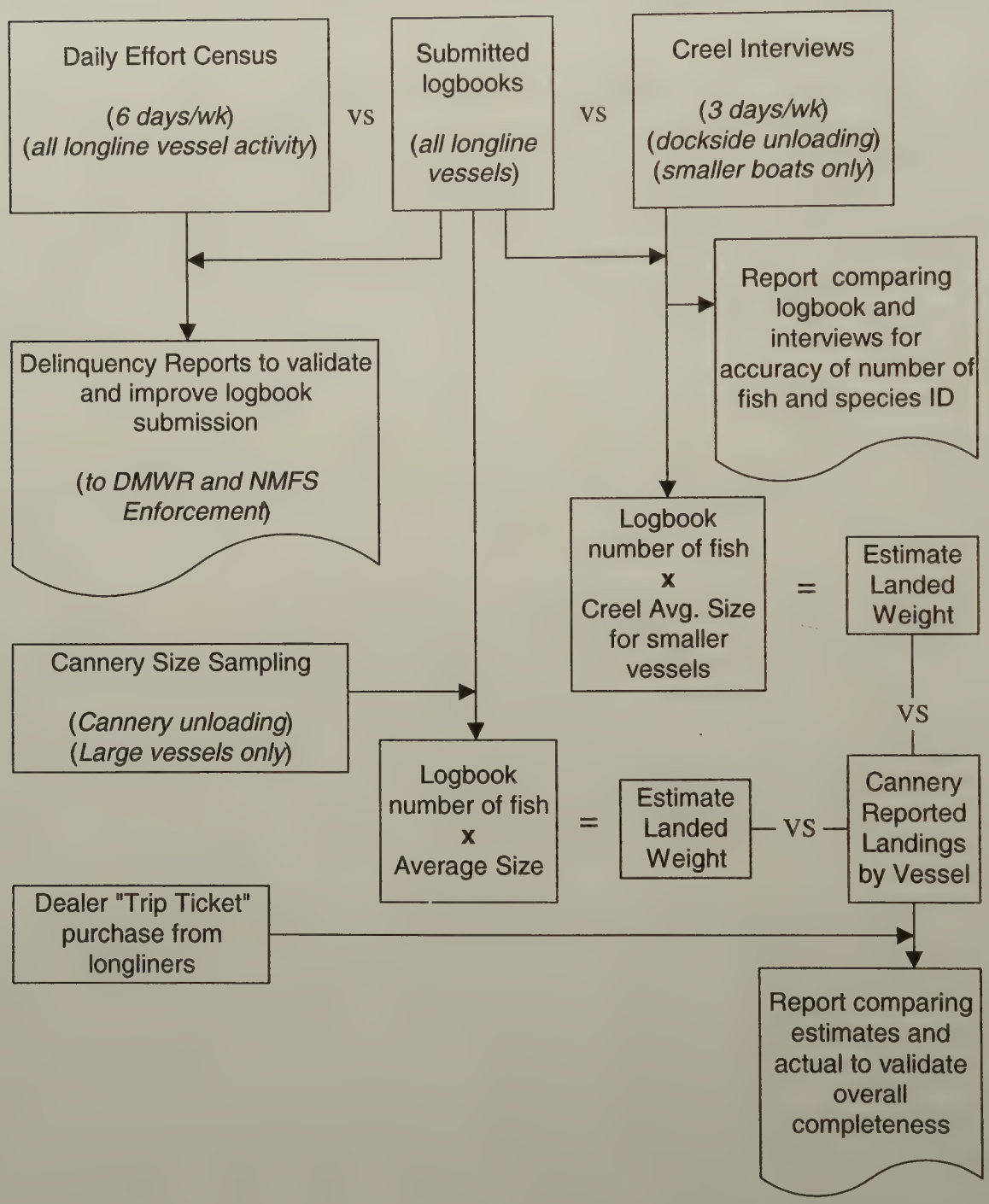
The data from 1982-85 have been imported directly from the original Commercial Catch Monitoring System used before the implementation of the offshore creel survey. Since 1986, the boat-based creel survey data expansion system has been the central system for estimating total commercial landings in American Samoa. In short, the survey data expansion process involves multiplying the average daily participation by the average catch per trip for each stratum. For the years 1986-90, commercial sales portions of the expanded creel survey data from Tutuila and the Manu`a Islands were combined to produce estimated total commercial landings. Since 1990, with the implementation of the mandatory fish dealer receipt book system on Tutuila, further adjustments have been made to these combined creel data by using receipt book data. These adjustments made significant improvements in overall totals as they helped adjust for sales not monitored through the boat-based survey (e.g., shoreline and strictly nighttime commercial fishing). Species totals modified with these types of adjustments are flagged in reports with an asterisk. Finally, in the late 1990's

when larger longline vessels began landing their catches directly at the canneries and thus out of the monitoring capabilities of the standard creel surveys, the longline logbook system and cannery size frequency sampling data entered the algorithm to fill the gap for this portion of the fishery. This data added the landings of these vessels to create a more complete picture of the estimated total commercial landings for the Territory.

One of the most significant recent improvements made in the data processing systems for DMWR has been in the area of cross-system data validation and quality control. By collecting similar data from several sources using different monitoring and reporting tools, the quality of reported data can be cross-referenced between systems to provide insight into the validity and completeness of each data set. The following schematic shows some cross-system data validation relationships and features that are utilized in the most current version of the integrated DMWR fisheries monitoring programs (see next page):

Data Quality and Cross Validation

American Samoa Longline Example



DATA REPORTING SYSTEM

After all editing, quality control, and data interpretation activities are completed, monthly and annual commercial landings data tables by species are generated. Each of the commercial landings data tables contains the common name, weight in pounds, value in dollars, the average price per pound of each species or species group, and whether the data was modified by Commercial Purchase System data (denoted by asterisks). The monthly data tables are based on monthly expansions of the Tutuila Offshore Creel Survey Data with enhancements by monthly Longline Logbook, Commercial Purchase System, and Manu`a data as explained previously. Annual data tables are based on combined annual expansions of the creel data for the entire calendar year with similar annual enhancements from Longline Logbook, Commercial Purchase System, and Manu`a data. Since the monthly and annual data tables are based on separate monthly and annual expansion of the creel data, the annual data tables are not the exact sum of the 12 monthly data tables, but they fall within the standard error. These data tables are listed as Tables A-1 to A-13 in this report.

The charts that make up the rest of the report are for groups of species as well as for some of the dominant individual species. Some of the charts in this volume are new or modified from earlier volumes. The top ten commercial species for the year are emphasized, and they will change from year to year. The species in the species groups used in the charts of this report are defined below.

To access the most up-to-date data and charts, please visit the WPacFIN Website at <http://www.pifsc.noaa.gov/wpacfin>.

Note: Many of the species included in this report have been recategorized over the years. For example, the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the Pelagic Management Unit Species (PMUS) category. However, this FSWP volume will maintain the original species categorizations from previous volumes for comparative purposes. As such, tunas are kept in a separate category.

I. Pelagic Management Unit Species (PMUS)

Although the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the PMUS (PPMUS), this report series will continue to tunas as a separate category from the PPMUS. The PMUS category includes:

Other Sharks
Blacktip reef shark
Blue shark
Mako Shark
Nurse shark
Thresher Shark
White-Tip Shark
Mahimahi
Blue marlin
Black marlin
Striped Marlin
Sailfish
Spearfish
Swordfish
Wahoo
Pomfret
Moonfish

II. Bottomfish Management Unit Species (BMUS)

Black Jack	Hawaiian opakapaka
Amberjack	Gindai (flower snap)
Giant trevally	Yellowtail snapper
Yelloweye Snapper.	Lehi (silverjaw)
Blacktip grouper	Onaga (longtail snapper)
Lunartail grouper	Ehu (squirrelfish snap.)
Blue lined snapper	Ambon emperor
Gray jobfish	Redgill emperor

III. Billfish

Swordfish	Striped Marlin
Blue marlin	Sailfish
Black marlin	Spearfish

IV. Tunas

Tunas	Bluefin Tuna
Skipjack Tuna	Yellowfin Tuna
Dogtooth tuna	BigeyeTuna
Albacore	Kawakawa

V. Other Tuna

Tunas	Bluefin Tuna
Dogtooth tuna	Kawakawa

VI. Fisheries Categories

A. Pelagics

Albacore
Barracudas
BigeyeTuna
Black marlin
Blacktip reef shark
Blue marlin
Blue shark
Bluefin Tuna
Dogtooth tuna
Hammerhead Shark
Kawakawa
Large barracuda
Mackerel
Mahimahi
Mako Shark
Moonfish
Nurse shark
Oilfish
Other Pelagic Fish
Other Sharks
Other birds
Pomfret
Rainbow runner
Sailfish
Sharks
Silky Shark
Skipjack Tuna
Small barracuda
Snake mackerel
Spearfish
Striped Marlin
Swordfish
Thresher Shark
Tiger Shark
Tunas
Wahoo
White-Tip Shark
Yellowfin Tuna

B. Bottom Fish

Amberjack
Ambon emperor
Bigeye emperor
Bigeye trevally
Black Jack
Black snapper
Blacktail snapper
Blacktip grouper
Blood snapper
Blue lined gindai
Blue lined snapper
Bluefin trevally
Blueline bream
Bottom Handline Snappers
Bottomfish (Assorted)
Brown jobfish
Ehu (squirrelfish snap.)
Emperors (misc)
Flagtail grouper
Giant grouper
Giant trevally
Gindai (flower snap)
Goldenline bream
Goldspot trevally
Gray jobfish
Groupers (misc)
Hawaiian opakapaka
Humpback snapper
Jacks (misc)
Kusakar's snapper
Lehi (silverjaw)
Longnose emperor
Lunartail grouper
Multidens snapper
Onaga (longtail snapper)
Onespot snapper
Orangespot emperor
Peacock grouper
Pristipomoides/Etelis
Redgill emperor
Rufous snapper
Smalltooth grouper
Spotted grouper
Stone's snapper
Striped grouper
Tomato grouper
Trevally (C.caeruleop.)
Twinspot/red snapper
Whitemouth trevally
Yellow opakapaka
Yelloweye Snapper.
Yellowspot grouper
Yellowtail snapper

C. Reef Fish

Bigeye scad
Catfish
Conger eels
Crabs
Eagle ray
Eels
Flyingfish
Giant clam
Halfbeaks
Invertebrates
Kona crab
Leatherback
Limu, algae
Mackerel scad: opelu
Mangrove crab
Milkfish
Miscellaneous
Moray eels
Needlefish
Octopus
Rays
Salmon
Sea shells
Sea urchins
Sharks
Shrimp
Slipper lobster
Spiny lobster
Spotted eels
Squid
Sunfish
Threadfin
Tilapia
Turban snail

D. Other

Bigeye squirrelfish
Bigeyes
Bigscale soldierfish
Brown surgeonfish
Brwn wrasse:pataotao
Butterflyfish
Cardinalfish
Convict tang
Flounders
Goatfish
Hawkfish
Inshore groupers
Inshore snappers
Lined surgeon
Mountain bass
Mullets
Naso tang
Orangespine unicornfish
Parrotfishes
Pink goatfish
Porcupinefish
Rabbitfish
Red snapper, mu
Reef fish (Assorted)
Rudderfish
Saber squirrelfish
Sargent major
Squirrelfish
Striped bristletooth
Surgeonfishes/tangs
Sweepers
Sweetlips
Terapon perch
Tilefish
Triggerfish
Unicornfishes (misc)
Whitespotted surgeonfish
Wrasse
Yellowfin surgeonfish

INTERPRETATION OF STATISTICS

The user is reminded to pay heed to the precautions and assumptions identified earlier in this document when making interpretations of or inferences from data reported in the tables and graphs. Remember also that the commercial landings summaries are not based on a census of all the fishing activities, but on samples of those activities and on integration of data from four separate data systems. One of the major factors in expanding the creel survey data into monthly and annual estimates is the use of proportionality constants to adjust for percent coverage of the surveys. The flexibility of the survey design allows for refinement of these constants as additional information is gained on the fishing activities. If the constants are improved upon, the basic survey data can be expanded again to create better overall estimates. However, the variability and species composition would not be expected to change since these statistics are based on the actual survey information collected from the fishermen. The estimates of total landings are considered to be conservative because the catch from the subsistence inshore fisheries are currently not included in this document.

This page is intentionally left blank.

Table A-1

American Samoa Annual 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Jacks (misc)	637	$1,326	$2.08	
Black Jack	174	$395	$2.28	
Barracudas	1,646	$3,875	$2.35	
Other Sharks	129	$65	$0.50	
Spotted eels	123	$247	$2.00	
Groupers (misc)	83	$104	$1.25	
Flagtail grouper	24	$59	$2.50	
Tomato grouper	133	$307	$2.31	
Blacktip grouper	39	$98	$2.50	
Striped grouper	19	$46	$2.50	
Smalltooth grouper	31	$79	$2.50	
Lunartail grouper	491	$1,003	$2.04	
Blue lined snapper	1,902	$3,612	$1.90	
Rufous snapper	28	$70	$2.50	
Onespot snapper	20	$50	$2.50	
Humpback snapper	2,564	$4,392	$1.71	
Blood snapper	7	$14	$2.10	
Gray jobfish	438	$927	$2.12	
Pristipomoides/Etelis	435	$1,303	$3.00	
Yellow opakapaka	220	$826	$3.75	
Hawaiian opakapaka	743	$1,304	$1.76	*
Gindai (flower snap)	55	$102	$1.85	*
Yellowtail snapper	60	$149	$2.50	
Lehi (silverjaw)	291	$728	$2.50	
Onaga (longtail snapper)	415	$1,066	$2.57	*
Ehu (squirrelfish snap.)	385	$921	$2.39	
Emperors (misc)	2,383	$4,181	$1.75	
Longnose emperor	808	$1,537	$1.90	
Ambon emperor	164	$246	$1.50	
Orangespot emperor	75	$151	$2.00	
Redgill emperor	70	$155	$2.21	
Oilfish	183	$183	$1.00	
Rudderfish	6	$10	$1.75	
Surgeonfishes/tangs	7,620	$14,969	$1.96	*
Unicornfishes (misc)	2,430	$4,804	$1.98	*
Squirrelfish	1,210	$2,379	$1.97	*
Saber squirrelfish	64	$127	$2.00	
Bigscale soldierfish	22	$55	$2.50	
Bigeye squirrelfish	19	$46	$2.39	
Parrotfishes	5,015	$9,811	$1.96	*
Terapon perch	19	$37	$2.00	
Goatfish	50	$146	$2.95	
Inshore groupers	635	$1,087	$1.71	
Porcupinefish	112	$224	$2.00	
Red snapper, mu	20	$40	$2.00	*
Mahimahi	17,399	$30,225	$1.74	
Swordfish	8,086	$18,230	$2.25	*
Blue marlin	4,703	$4,926	$1.05	
Black marlin	4,192	$4,192	$1.00	
Sailfish	2,108	$1,973	$0.94	
Rainbow runner	32	$64	$2.00	
Wahoo	368,453	$353,896	$0.96	
Skipjack Tuna	252,711	$151,473	$0.60	

Table A-1 (Cont.)
American Samoa Annual 2003 Estimated Commercial Landings

Species	Pounds	Value	$/Lb	
Dogtooth tuna	1,055	$1,551	$1.47	
Albacore	8,664,396	$8,186,667	$0.94	
Yellowfin Tuna	1,074,659	$943,411	$0.88	
BigeyeTuna	519,383	$575,105	$1.11	
Moonfish	4,090	$4,090	$1.00	
Crabs	121	$234	$1.95	
Spiny lobster	779	$3,018	$3.87	*
Octopus	512	$1,024	$2.00	*
Salmon	14	$28	$2.00	
TOTAL	10,954,686	$10,343,362	$0.94	

* Data replaced or modified by Actual Commercial Landings Data

Table A-2

American Samoa January 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Other Sharks	1,499	$750	$0.50	
Tomato grouper	29	$70	$2.43	
Lunartail grouper	25	$63	$2.50	
Blue lined snapper	75	$188	$2.50	
Gray jobfish	60	$150	$2.50	
Ehu (squirrelfish snap.)	64	$192	$3.00	*
Emperors (misc)	40	$100	$2.50	
Rudderfish	8	$13	$1.75	
Surgeonfishes/tangs	801	$1,602	$2.00	*
Unicornfishes (misc)	323	$639	$1.98	*
Squirrelfish	159	$312	$1.97	*
Parrotfishes	617	$1,199	$1.95	*
Terapon perch	2	$4	$2.00	
Goatfish	13	$39	$2.95	
Inshore groupers	26	$46	$1.75	*
Porcupinefish	11	$21	$2.00	
Mahimahi	3,248	$5,934	$1.83	
Swordfish	374	$733	$1.96	*
Blue marlin	5,193	$5,193	$1.00	
Black marlin	2,094	$2,094	$1.00	
Sailfish	71	$95	$1.33	
Wahoo	40,407	$42,459	$1.05	
Skipjack Tuna	26,196	$22,622	$0.86	
Dogtooth tuna	40	$60	$1.50	
Albacore	422,641	$385,056	$0.91	
Yellowfin Tuna	55,213	$53,727	$0.97	
BigeyeTuna	19,733	$21,775	$1.10	
Moonfish	3	$3	$1.00	
Crabs	27	$45	$1.69	
Spiny lobster	87	$271	$3.13	
Salmon	1	$3	$2.01	
TOTAL	579,078	$545,457	$0.94	

* Data replaced or modified by Actual Commercial Landings Data

Table A-3
American Samoa February 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Jacks (misc)	10	$25	$2.50	
Barracudas	116	$286	$2.47	
Tomato grouper	5	$10	$2.00	
Lunartail grouper	20	$50	$2.50	
Blue lined snapper	8	$13	$1.65	*
Gray jobfish	10	$25	$2.50	
Hawaiian opakapaka	30	$50	$1.65	*
Lehi (silverjaw)	30	$75	$2.50	
Onaga (longtail snapper)	76	$190	$2.50	*
Ehu (squirrelfish snap.)	100	$250	$2.50	*
Rudderfish	10	$17	$1.75	
Surgeonfishes/tangs	536	$1,071	$2.00	
Unicornfishes (misc)	254	$499	$1.97	
Squirrelfish	67	$134	$2.00	*
Parrotfishes	244	$488	$2.00	*
Terapon perch	4	$7	$2.00	
Goatfish	17	$51	$2.95	
Inshore groupers	31	$57	$1.85	
Porcupinefish	21	$43	$2.00	
Mahimahi	607	$610	$1.00	
Swordfish	196	$433	$2.21	*
Blue marlin	2,949	$2,545	$0.86	
Sailfish	200	$150	$0.75	*
Wahoo	23,658	$22,742	$0.96	
Skipjack Tuna	28,424	$16,723	$0.59	
Albacore	269,462	$255,663	$0.95	
Yellowfin Tuna	33,175	$29,396	$0.89	
BigeyeTuna	5,197	$5,711	$1.10	
Moonfish	2	$2	$1.00	
Crabs	43	$74	$1.74	
Spiny lobster	138	$429	$3.11	
Salmon	3	$5	$2.00	
TOTAL	365,641	$337,824	$0.92	

* Data replaced or modified by Actual Commercial Landings Data

Table A-4

American Samoa March 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Barracudas	30	$38	$1.25	
Groupers (misc)	69	$86	$1.25	
Tomato grouper	28	$69	$2.44	
Blacktip grouper	20	$50	$2.50	
Lunartail grouper	36	$75	$2.10	
Blue lined snapper	103	$222	$2.16	
Humpback snapper	30	$38	$1.25	*
Blood snapper	16	$33	$2.10	
Gray jobfish	20	$50	$2.50	
Pristipomoides/Etelis	361	$1,083	$3.00	
Yellow opakapaka	183	$686	$3.75	
Onaga (longtail snapper)	57	$143	$2.50	*
Ehu (squirrelfish snap.)	126	$246	$1.95	*
Emperors (misc)	399	$523	$1.31	
Rudderfish	6	$11	$1.75	
Surgeonfishes/tangs	504	$1,008	$2.00	*
Unicornfishes (misc)	201	$389	$1.94	*
Squirrelfish	93	$180	$1.94	*
Parrotfishes	531	$1,001	$1.89	*
Terapon perch	3	$6	$2.00	
Goatfish	11	$33	$2.95	
Inshore groupers	143	$259	$1.82	
Porcupinefish	19	$38	$2.00	
Mahimahi	870	$1,599	$1.84	*
Swordfish	208	$468	$2.25	*
Blue marlin	247	$371	$1.50	*
Sailfish	271	$247	$0.91	
Wahoo	23,664	$24,922	$1.05	
Skipjack Tuna	15,206	$9,160	$0.60	
Albacore	266,419	$255,811	$0.96	
Yellowfin Tuna	91,576	$81,073	$0.89	
BigeyeTuna	37,323	$41,102	$1.10	
Moonfish	8	$8	$1.00	
Crabs	32	$57	$1.78	
Spiny lobster	118	$364	$3.08	
Octopus	103	$206	$2.00	*
Salmon	2	$5	$2.00	
TOTAL	439,034	$421,658	$0.96	

* Data replaced or modified by Actual Commercial Landings Data

Table A-5
American Samoa April 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Jacks (misc)	35	$88	$2.50	
Tomato grouper	4	$8	$2.00	
Lunartail grouper	25	$63	$2.50	
Gray jobfish	25	$63	$2.50	
Lehi (silverjaw)	40	$100	$2.50	
Onaga (longtail snapper)	77	$193	$2.50	*
Ehu (squirrelfish snap.)	70	$210	$3.00	
Emperors (misc)	25	$63	$2.50	
Surgeonfishes/tangs	775	$1,550	$2.00	*
Unicornfishes (misc)	378	$737	$1.95	*
Squirrelfish	152	$298	$1.97	*
Parrotfishes	715	$1,365	$1.91	*
Terapon perch	4	$8	$2.00	
Goatfish	9	$28	$2.95	
Inshore groupers	34	$60	$1.75	*
Porcupinefish	23	$45	$2.00	
Mahimahi	1,075	$2,026	$1.88	*
Swordfish	788	$1,845	$2.34	*
Blue marlin	133	$141	$1.06	
Black marlin	2,063	$2,063	$1.00	
Wahoo	18,380	$16,817	$0.91	
Skipjack Tuna	23,953	$14,359	$0.60	
Dogtooth tuna	20	$50	$2.50	
Albacore	457,285	$432,334	$0.95	
Yellowfin Tuna	166,193	$146,368	$0.88	
BigeyeTuna	60,459	$66,745	$1.10	
Moonfish	15	$15	$1.00	
Crabs	22	$43	$2.00	
Spiny lobster	141	$433	$3.08	
Salmon	3	$6	$2.00	
TOTAL	732,917	$688,118	$0.94	

* Data replaced or modified by Actual Commercial Landings Data

Table A-6

American Samoa May 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Barracudas	5	$13	$2.47	
Other Sharks	437	$219	$0.50	
Surgeonfishes/tangs	977	$1,896	$1.94	*
Unicornfishes (misc)	214	$426	$1.99	*
Squirrelfish	146	$288	$1.98	*
Parrotfishes	423	$836	$1.98	*
Inshore groupers	16	$24	$1.50	*
Mahimahi	1,232	$2,290	$1.86	
Swordfish	559	$1,259	$2.25	*
Wahoo	14,839	$13,777	$0.93	
Skipjack Tuna	28,567	$16,940	$0.59	
Albacore	1,081,203	$1,022,578	$0.95	
Yellowfin Tuna	189,466	$165,166	$0.87	
BigeyeTuna	116,761	$128,408	$1.10	
Moonfish	4	$4	$1.00	
TOTAL	1,434,848	$1,354,123	$0.94	

* Data replaced or modified by Actual Commercial Landings Data

Table A-7
American Samoa June 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Barracudas	70	$130	$1.85	
Blue lined snapper	92	$161	$1.75	*
Humpback snapper	140	$245	$1.75	*
Gray jobfish	120	$210	$1.75	*
Hawaiian opakapaka	140	$252	$1.80	*
Gindai (flower snap)	22	$44	$2.00	*
Ehu (squirrelfish snap.)	27	$54	$2.00	*
Surgeonfishes/tangs	467	$934	$2.00	*
Unicornfishes (misc)	118	$236	$2.00	*
Squirrelfish	82	$164	$2.00	*
Parrotfishes	288	$576	$2.00	*
Mahimahi	767	$1,455	$1.90	*
Swordfish	636	$1,515	$2.38	*
Rainbow runner	1	$2	$2.00	
Wahoo	24,684	$23,406	$0.95	
Skipjack Tuna	27,867	$16,364	$0.59	
Albacore	914,741	$864,971	$0.95	
Yellowfin Tuna	144,511	$131,916	$0.91	
BigeyeTuna	80,795	$89,685	$1.11	
Moonfish	4	$4	$1.00	
Spiny lobster	45	$158	$3.50	*
TOTAL	1,195,617	$1,132,481	$0.95	

* Data replaced or modified by Actual Commercial Landings Data

Table A-8

American Samoa July 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Jacks (misc)	40	$100	$2.50	
Black Jack	51	$126	$2.50	
Barracudas	357	$892	$2.50	
Flagtail grouper	13	$31	$2.50	
Tomato grouper	1	$2	$2.00	
Striped grouper	10	$24	$2.50	
Smalltooth grouper	11	$28	$2.50	
Blue lined snapper	87	$194	$2.22	
Rufous snapper	15	$37	$2.50	
Humpback snapper	95	$166	$1.75	*
Gray jobfish	84	$147	$1.75	*
Hawaiian opakapaka	44	$77	$1.75	*
Gindai (flower snap)	4	$7	$1.75	
Yellowtail snapper	19	$48	$2.50	
Lehi (silverjaw)	108	$271	$2.50	
Onaga (longtail snapper)	25	$65	$2.58	
Ehu (squirrelfish snap.)	160	$361	$2.26	
Emperors (misc)	28	$49	$1.75	
Redgill emperor	16	$39	$2.50	
Oilfish	5	$5	$1.00	
Surgeonfishes/tangs	526	$1,052	$2.00	*
Unicornfishes (misc)	194	$384	$1.98	*
Squirrelfish	100	$196	$1.97	*
Parrotfishes	432	$827	$1.91	*
Terapon perch	1	$2	$2.00	
Goatfish	3	$9	$2.95	
Inshore groupers	34	$60	$1.75	*
Porcupinefish	7	$14	$2.00	
Mahimahi	1,179	$1,727	$1.46	
Swordfish	1,104	$2,678	$2.43	*
Blue marlin	288	$353	$1.23	
Black marlin	118	$118	$1.00	
Sailfish	374	$374	$1.00	*
Wahoo	36,438	$36,577	$1.00	
Skipjack Tuna	32,497	$19,044	$0.59	
Dogtooth tuna	70	$175	$2.50	
Albacore	653,395	$620,212	$0.95	
Yellowfin Tuna	63,800	$58,845	$0.92	
BigeyeTuna	37,466	$41,935	$1.12	
Moonfish	408	$408	$1.00	
Crabs	7	$14	$2.00	
Spiny lobster	138	$581	$4.22	*
Salmon	1	$2	$2.00	
TOTAL	829,752	$788,256	$0.95	

* Data replaced or modified by Actual Commercial Landings Data

Table A-9

American Samoa August 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Jacks (misc)	47	$98	$2.11	
Barracudas	59	$104	$1.75	
Tomato grouper	27	$67	$2.48	
Blacktip grouper	7	$18	$2.50	
Smalltooth grouper	10	$25	$2.50	
Lunartail grouper	36	$80	$2.22	
Blue lined snapper	201	$352	$1.75	*
Humpback snapper	1,057	$1,850	$1.75	
Gray jobfish	45	$113	$2.50	
Hawaiian opakapaka	120	$210	$1.75	*
Emperors (misc)	52	$107	$2.08	
Redgill emperor	32	$63	$2.00	
Surgeonfishes/tangs	359	$718	$2.00	*
Unicornfishes (misc)	114	$228	$2.00	*
Squirrelfish	59	$118	$2.00	*
Parrotfishes	243	$494	$2.03	*
Terapon perch	1	$2	$1.99	
Goatfish	3	$9	$2.95	
Inshore groupers	7	$11	$1.73	
Porcupinefish	7	$15	$2.00	
Mahimahi	2,378	$4,401	$1.85	
Swordfish	541	$1,191	$2.20	
Blue marlin	97	$170	$1.75	*
Rainbow runner	19	$38	$2.00	
Wahoo	21,701	$20,834	$0.96	
Skipjack Tuna	19,200	$11,637	$0.61	
Dogtooth tuna	73	$73	$1.00	*
Albacore	787,442	$745,824	$0.95	
Yellowfin Tuna	41,597	$36,758	$0.88	
BigeyeTuna	20,107	$22,359	$1.11	
Moonfish	469	$469	$1.00	
Crabs	7	$14	$2.00	
Spiny lobster	177	$739	$4.18	*
Octopus	175	$350	$2.00	*
Salmon	1	$2	$1.99	
TOTAL	896,470	$849,542	$0.95	

* Data replaced or modified by Actual Commercial Landings Data

Table A-10
American Samoa September 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Jacks (misc)	42	$98	$2.32	
Barracudas	49	$119	$2.42	
Tomato grouper	9	$21	$2.41	
Blacktip grouper	12	$30	$2.50	
Lunartail grouper	7	$12	$1.86	
Blue lined snapper	108	$189	$1.75	*
Onespot snapper	20	$50	$2.50	
Humpback snapper	433	$758	$1.75	
Gray jobfish	25	$63	$2.50	
Hawaiian opakapaka	16	$28	$1.75	*
Gindai (flower snap)	25	$44	$1.75	*
Ehu (squirrelfish snap.)	50	$88	$1.75	*
Emperors (misc)	24	$50	$2.13	
Redgill emperor	13	$26	$2.00	
Oilfish	13	$13	$1.00	
Surgeonfishes/tangs	555	$1,110	$2.00	*
Unicornfishes (misc)	205	$410	$2.00	*
Squirrelfish	84	$165	$1.96	*
Parrotfishes	394	$791	$2.01	*
Terapon perch	2	$3	$2.00	
Goatfish	4	$11	$2.95	
Inshore groupers	28	$64	$2.28	
Porcupinefish	9	$18	$2.00	
Red snapper, mu	20	$40	$2.00	*
Mahimahi	2,541	$4,187	$1.65	
Swordfish	669	$1,356	$2.03	*
Blue marlin	591	$591	$1.00	*
Sailfish	9	$8	$0.91	
Rainbow runner	8	$16	$2.00	
Wahoo	34,948	$33,520	$0.96	
Skipjack Tuna	16,985	$10,330	$0.61	
Albacore	1,068,726	$1,012,263	$0.95	
Yellowfin Tuna	119,547	$104,521	$0.87	
BigeyeTuna	57,551	$63,678	$1.11	
Moonfish	219	$219	$1.00	
Crabs	9	$17	$2.00	
Spiny lobster	311	$1,191	$3.83	*
Salmon	1	$2	$2.00	
TOTAL	1,304,258	$1,236,097	$0.95	

* Data replaced or modified by Actual Commercial Landings Data

Table A-11
American Samoa October 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Jacks (misc)	196	$392	$2.00	
Black Jack	45	$89	$2.00	
Barracudas	328	$788	$2.40	
Spotted eels	71	$141	$2.00	
Tomato grouper	18	$36	$2.00	
Lunartail grouper	158	$316	$2.00	
Blue lined snapper	430	$752	$1.75	
Humpback snapper	455	$744	$1.63	
Gray jobfish	80	$140	$1.75	
Hawaiian opakapaka	38	$67	$1.75	*
Gindai (flower snap)	8	$14	$1.75	*
Yellowtail snapper	13	$33	$2.50	
Lehi (silverjaw)	9	$23	$2.50	
Onaga (longtail snapper)	52	$134	$2.58	
Ehu (squirrelfish snap.)	7	$16	$2.26	
Emperors (misc)	1,040	$1,820	$1.75	
Longnose emperor	48	$96	$2.00	
Orangespot emperor	43	$86	$2.00	
Oilfish	81	$81	$1.00	
Surgeonfishes/tangs	806	$1,516	$1.88	*
Unicornfishes (misc)	158	$316	$2.00	*
Squirrelfish	86	$172	$2.00	*
Parrotfishes	307	$614	$2.00	*
Inshore groupers	131	$218	$1.66	*
Mahimahi	2,144	$3,861	$1.80	
Swordfish	1,100	$2,550	$2.32	*
Blue marlin	170	$153	$0.90	*
Black marlin	1,772	$1,771	$1.00	
Sailfish	496	$447	$0.90	
Rainbow runner	5	$11	$2.00	
Wahoo	51,145	$47,682	$0.93	
Skipjack Tuna	16,284	$9,934	$0.61	
Dogtooth tuna	510	$687	$1.35	
Albacore	984,081	$934,311	$0.95	
Yellowfin Tuna	69,498	$62,182	$0.89	
BigeyeTuna	41,622	$46,038	$1.11	
Moonfish	911	$911	$1.00	
Spiny lobster	23	$92	$4.00	*
Octopus	79	$158	$2.00	*
TOTAL	1,174,448	$1,119,388	$0.95	

* Data replaced or modified by Actual Commercial Landings Data

Table A-12
American Samoa November 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Jacks (misc)	55	$109	$1.98	
Black Jack	11	$23	$2.00	
Barracudas	31	$68	$2.19	
Spotted eels	18	$36	$2.00	
Tomato grouper	5	$10	$2.00	
Lunartail grouper	46	$90	$1.97	
Blue lined snapper	144	$251	$1.75	
Humpback snapper	144	$239	$1.66	
Gray jobfish	24	$41	$1.75	
Hawaiian opakapaka	15	$26	$1.75	*
Yellowtail snapper	3	$8	$2.50	
Lehi (silverjaw)	2	$6	$2.50	
Onaga (longtail snapper)	100	$278	$2.78	*
Ehu (squirrelfish snap.)	14	$25	$1.75	*
Emperors (misc)	292	$511	$1.75	
Longnose emperor	58	$105	$1.80	
Orangespot emperor	11	$22	$2.00	
Surgeonfishes/tangs	918	$1,742	$1.90	*
Unicornfishes (misc)	183	$363	$1.98	*
Squirrelfish	112	$209	$1.87	*
Parrotfishes	485	$970	$2.00	*
Terapon perch	1	$1	$1.98	
Goatfish	2	$4	$2.95	
Inshore groupers	196	$311	$1.58	*
Porcupinefish	4	$7	$2.00	
Mahimahi	792	$1,577	$1.99	
Swordfish	828	$1,826	$2.21	*
Blue marlin	738	$781	$1.06	
Sailfish	262	$239	$0.91	
Wahoo	38,987	$36,935	$0.95	
Skipjack Tuna	11,748	$7,036	$0.60	
Dogtooth tuna	130	$174	$1.35	
Albacore	962,310	$910,789	$0.95	
Yellowfin Tuna	58,828	$50,011	$0.85	
BigeyeTuna	23,163	$25,640	$1.11	
Moonfish	274	$274	$1.00	
Crabs	4	$7	$2.00	
Spiny lobster	23	$70	$3.08	
Octopus	155	$310	$2.00	*
Salmon	1	$1	$1.98	
TOTAL	1,101,116	$1,041,127	$0.95	

* Data replaced or modified by Actual Commercial Landings Data

Table A-13
American Samoa December 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Jacks (misc)	37	$72	$1.92	
Barracudas	40	$71	$1.80	
Tomato grouper	1	$1	$2.00	
Lunartail grouper	27	$46	$1.74	
Blue lined snapper	203	$355	$1.75	
Humpback snapper	100	$174	$1.75	
Gray jobfish	7	$12	$1.75	
Hawaiian opakapaka	340	$595	$1.75	*
Onaga (longtail snapper)	105	$263	$2.50	*
Emperors (misc)	58	$101	$1.75	
Longnose emperor	217	$410	$1.89	
Ambon emperor	49	$74	$1.50	
Surgeonfishes/tangs	544	$1,066	$1.96	*
Unicornfishes (misc)	169	$330	$1.95	*
Squirrelfish	72	$144	$2.00	*
Parrotfishes	337	$652	$1.93	*
Terapon perch	1	$1	$2.00	
Goatfish	2	$4	$2.94	
Inshore groupers	59	$95	$1.61	
Porcupinefish	4	$7	$2.00	
Mahimahi	1,439	$2,214	$1.54	*
Swordfish	1,105	$2,426	$2.20	*
Sailfish	2	$2	$0.91	
Wahoo	44,085	$42,255	$0.96	
Skipjack Tuna	16,152	$9,758	$0.60	
Dogtooth tuna	63	$110	$1.75	*
Albacore	778,184	$735,993	$0.95	
Yellowfin Tuna	65,122	$56,427	$0.87	
BigeyeTuna	17,997	$19,889	$1.11	
Moonfish	6	$6	$1.00	
Crabs	3	$7	$2.00	
Spiny lobster	22	$67	$3.08	
Salmon	0	$1	$2.02	
TOTAL	926,548	$873,628	$0.94	

* Data replaced or modified by Actual Commercial Landings Data

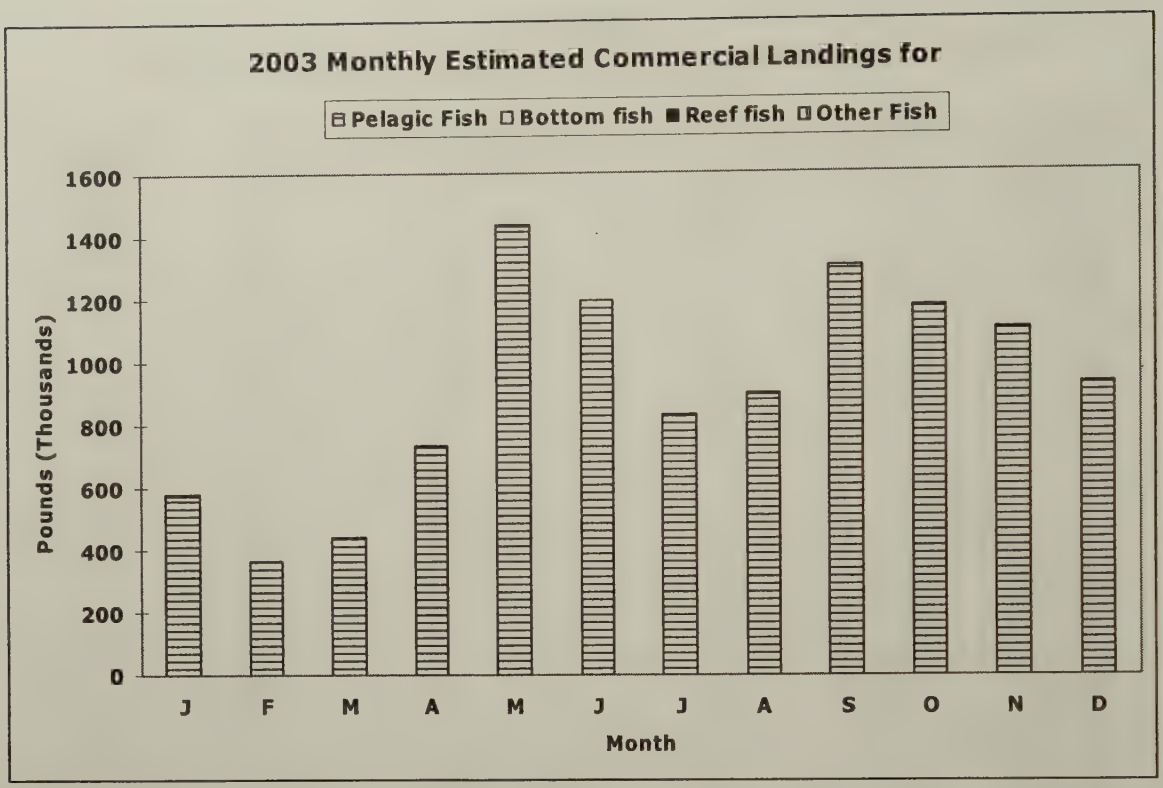


Figure A-1-1

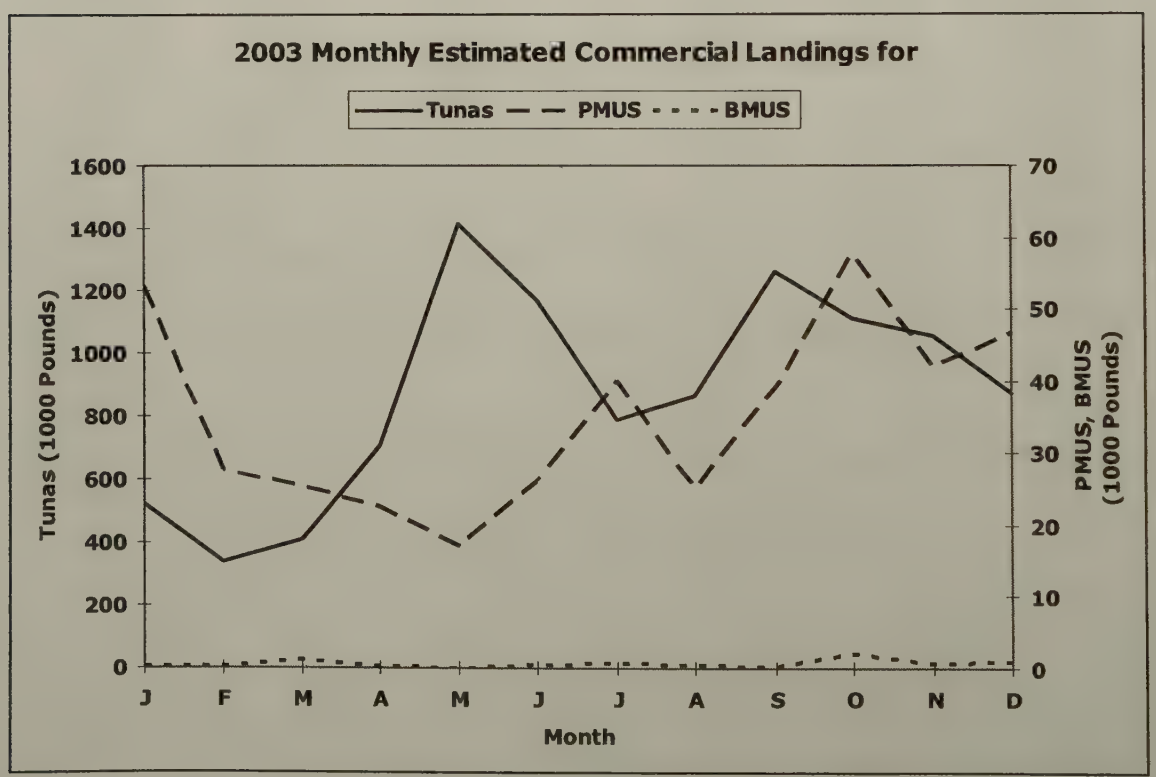


Figure A-1-2

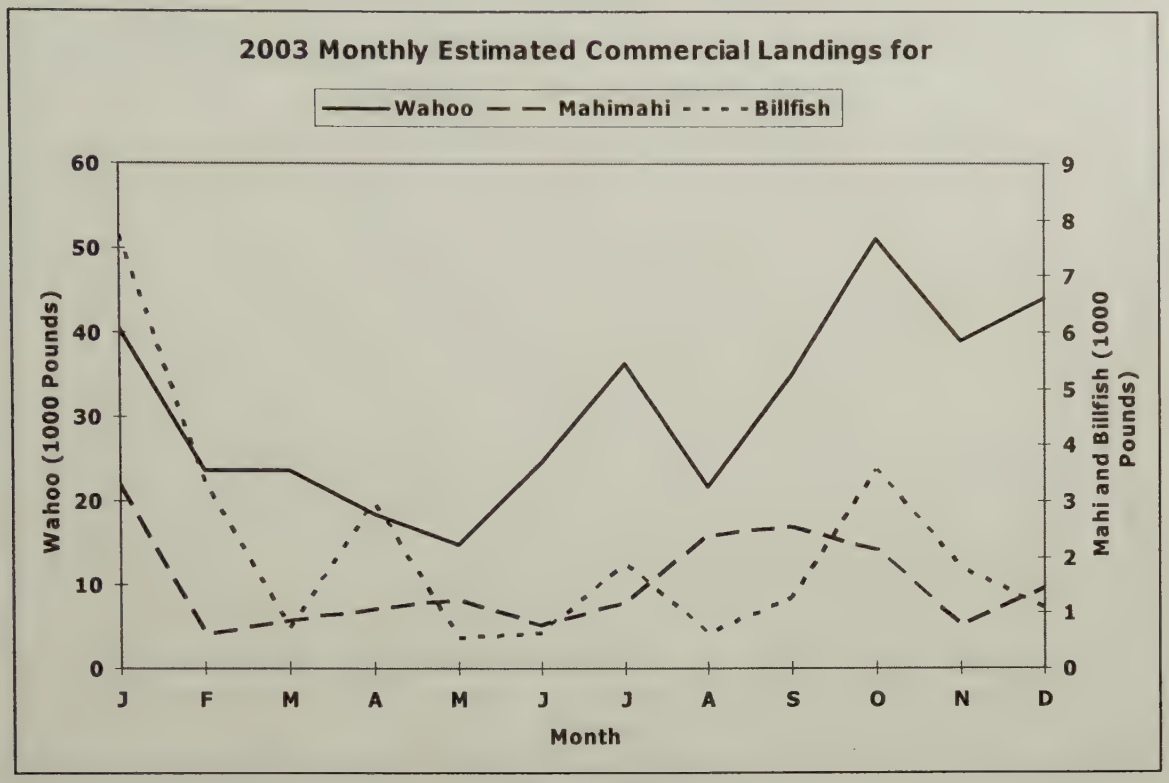


Figure A-1-3

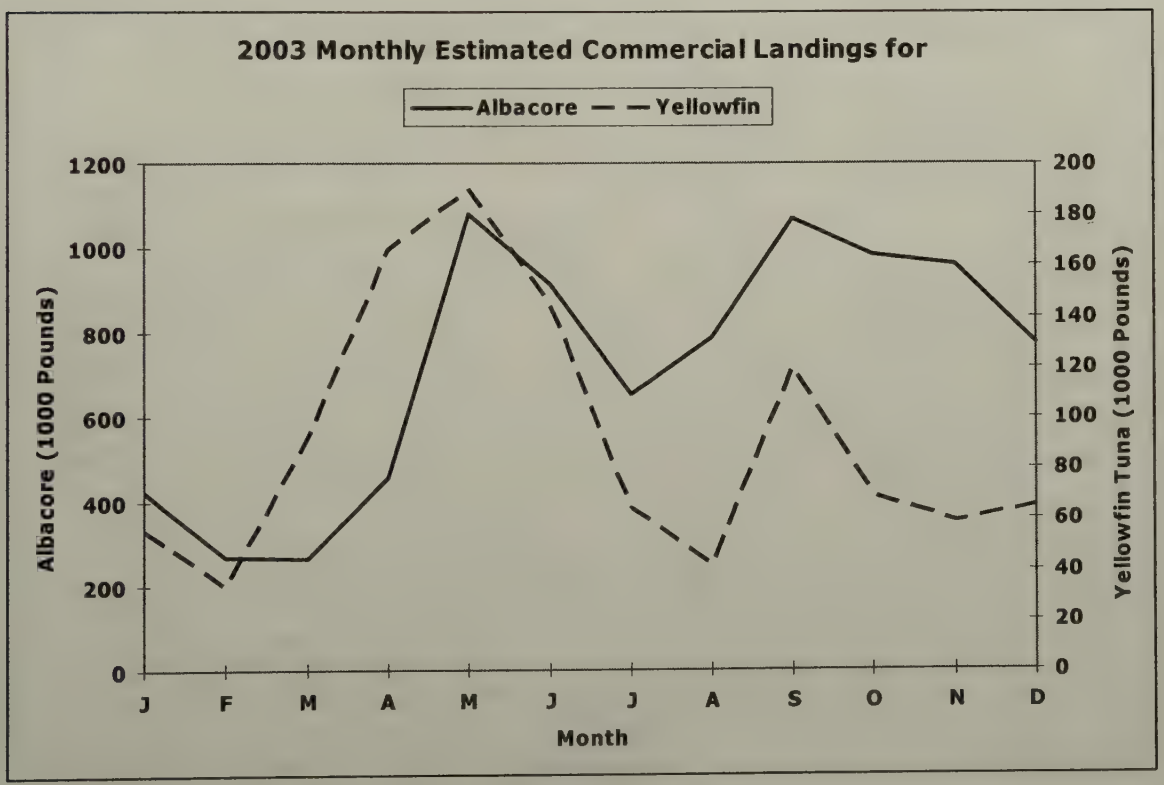


Figure A-1-4

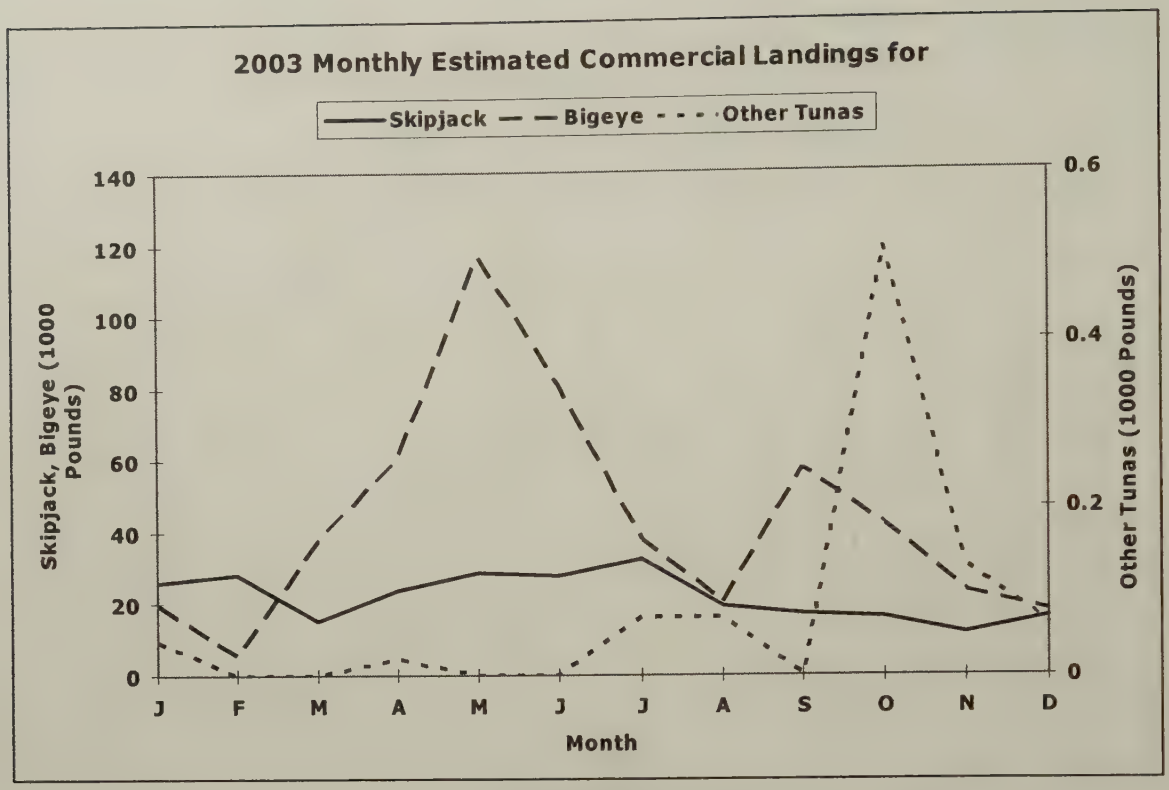


Figure A-1-5

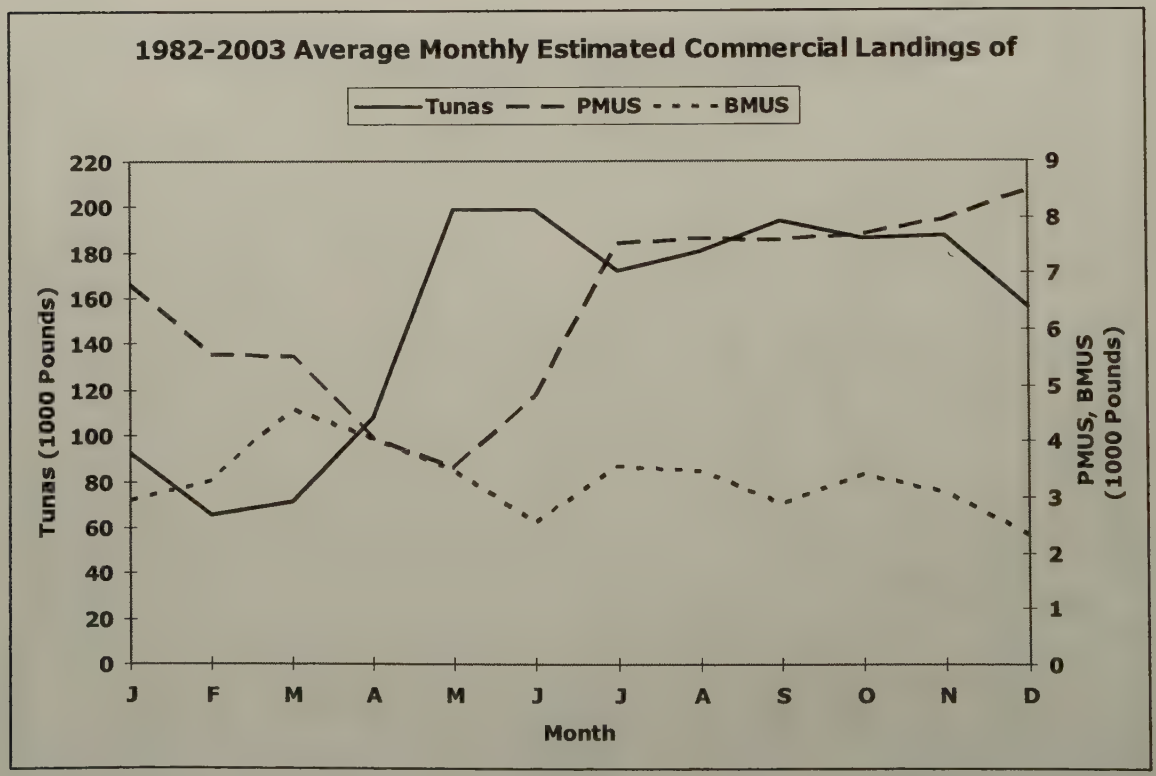


Figure A-2-1

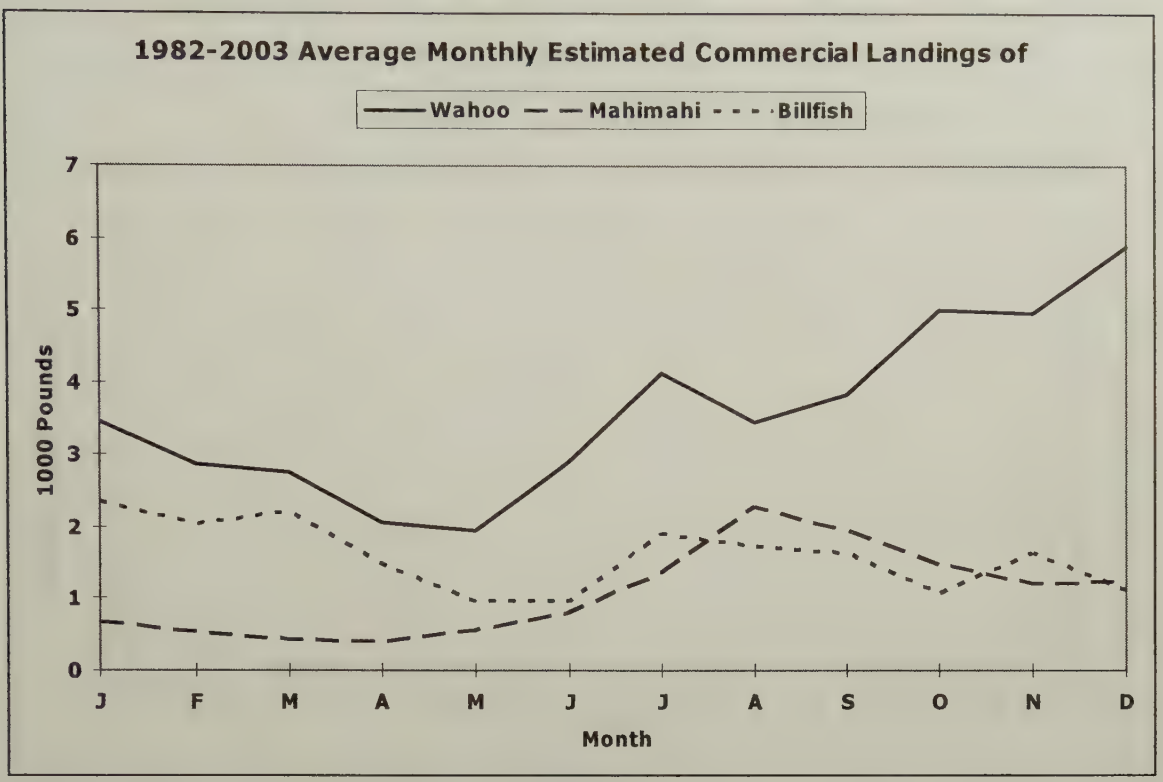


Figure A-2-2

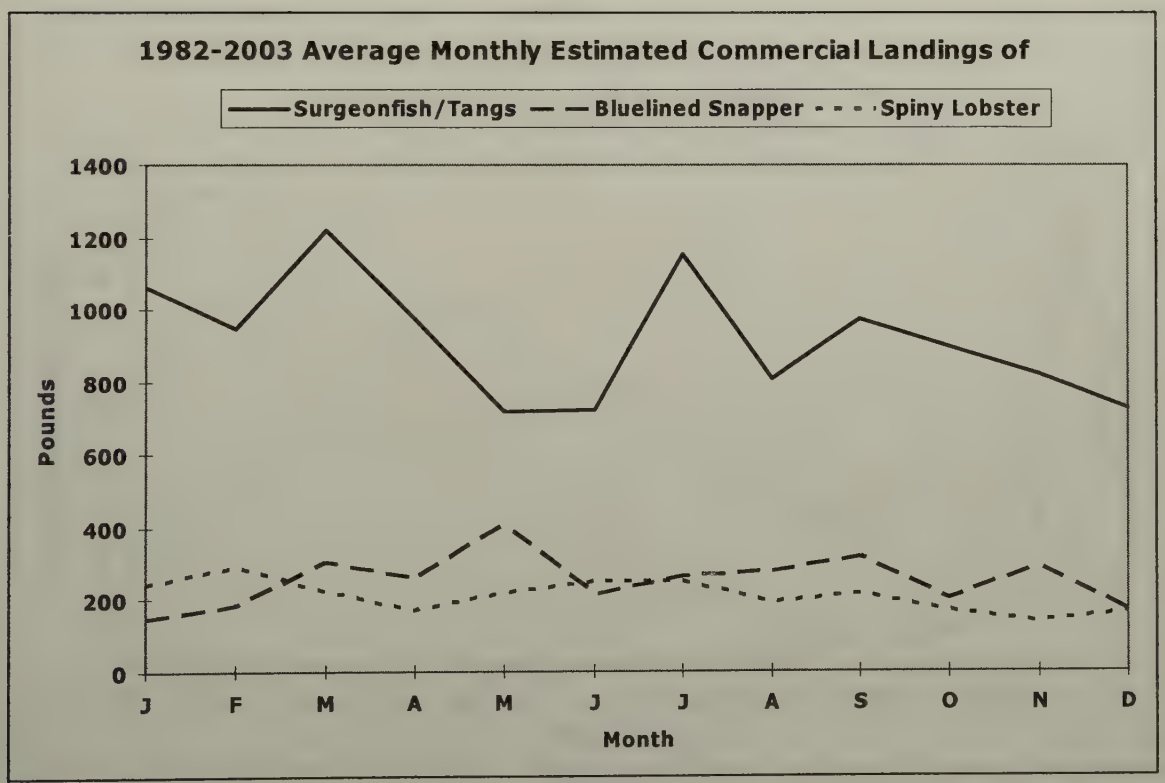


Figure A-2-3

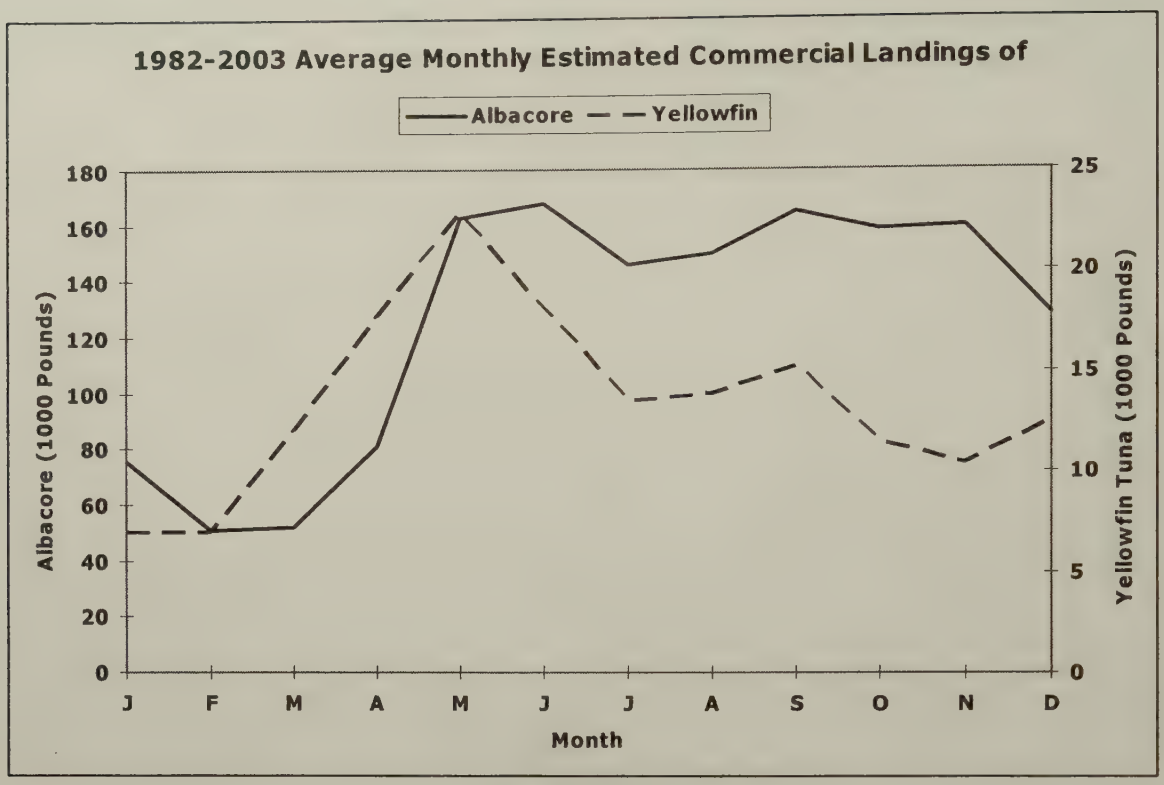


Figure A-2-4

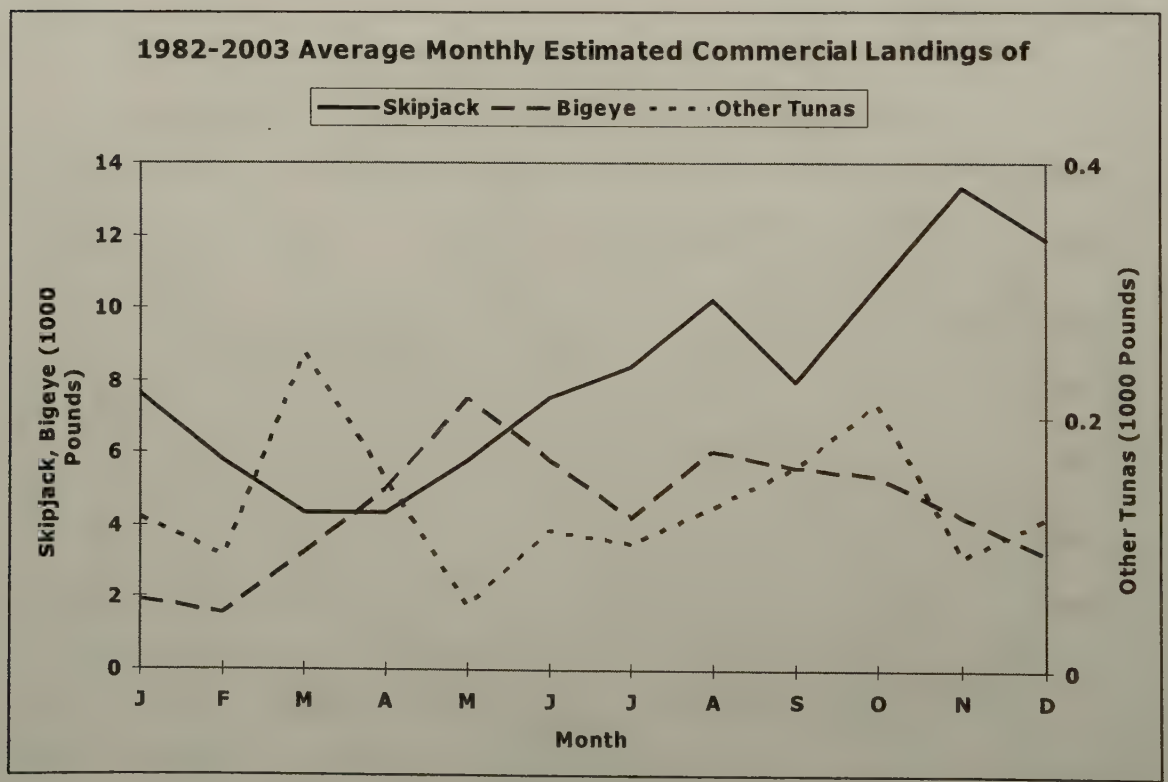


Figure A-2-5

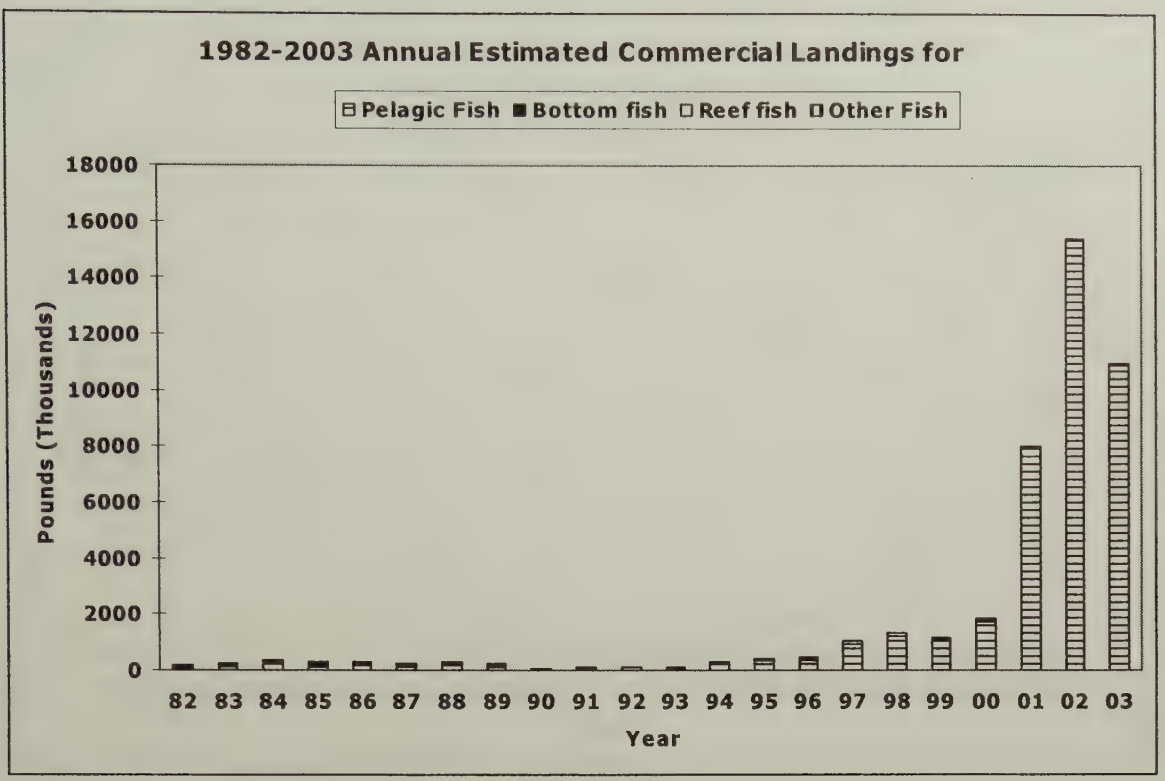


Figure A-3-1

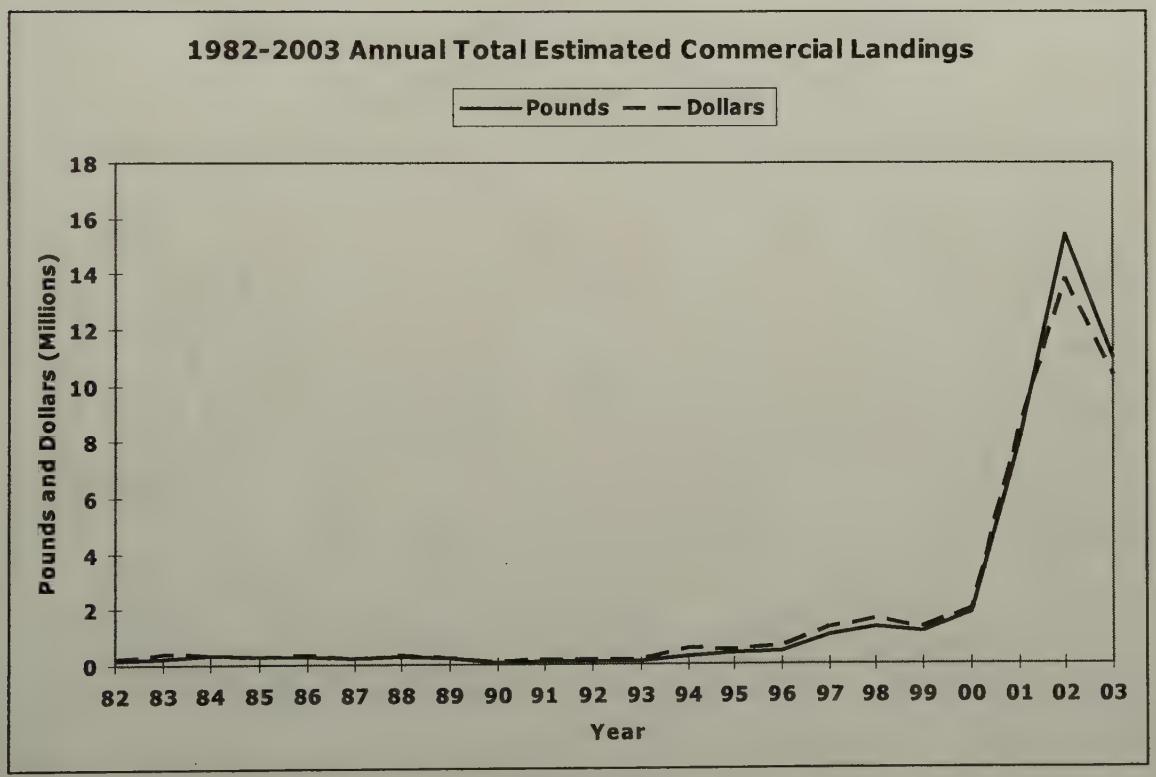


Figure A-3-2

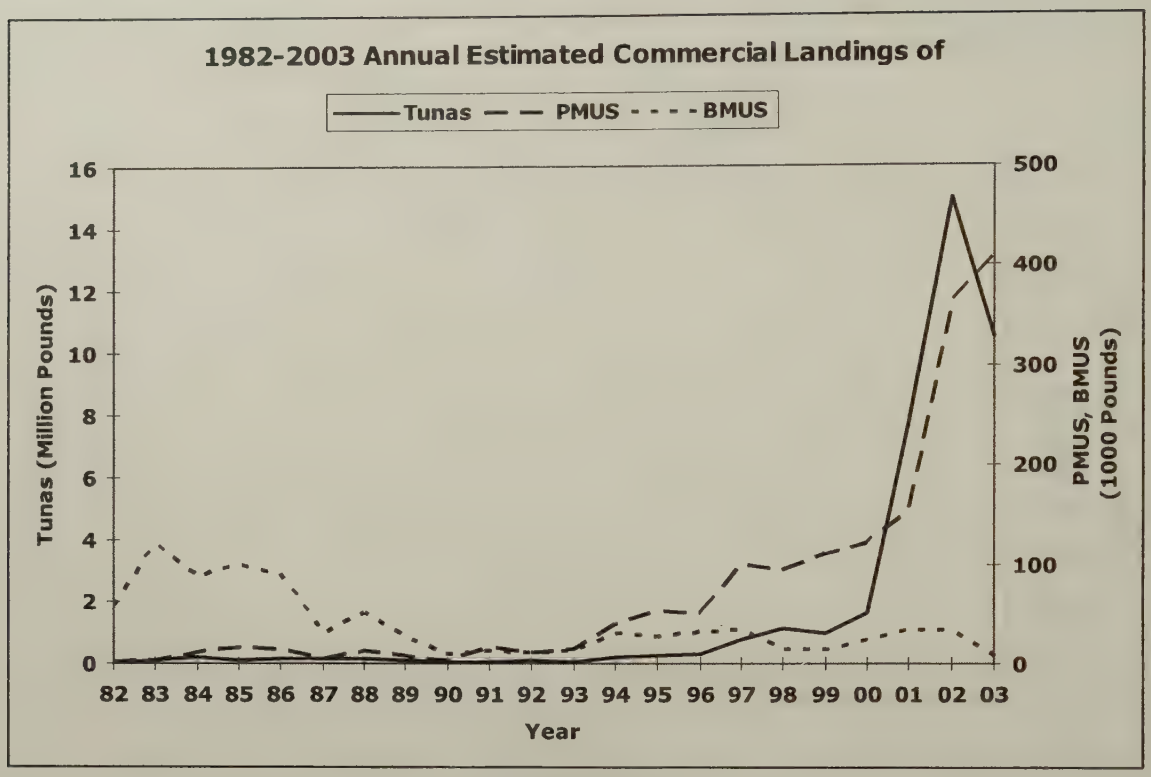


Figure A-3-3

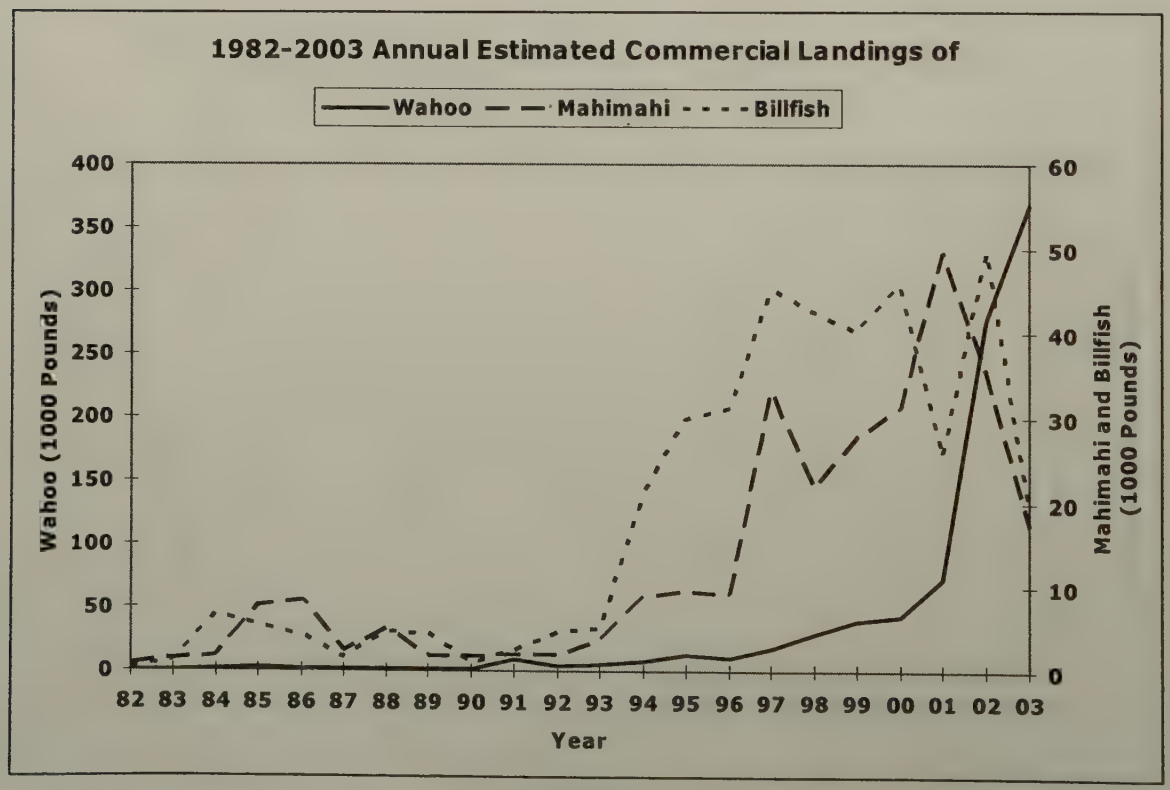


Figure A-3-4

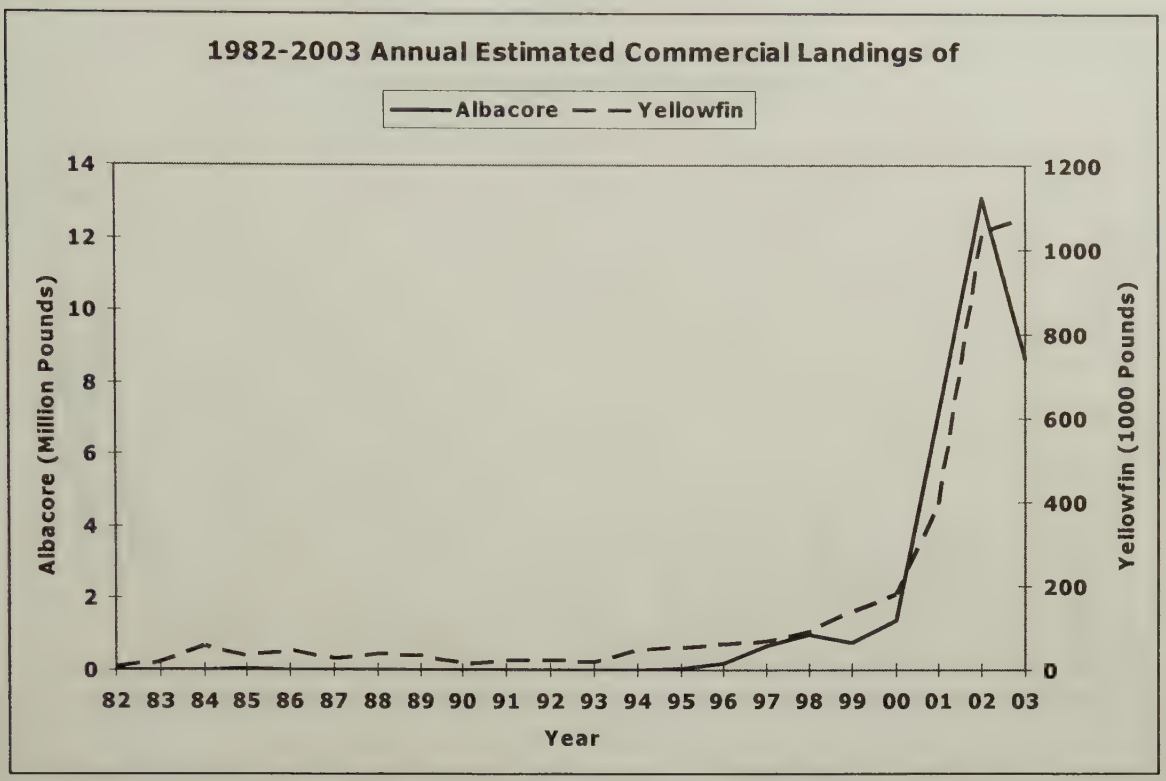


Figure A-3-5

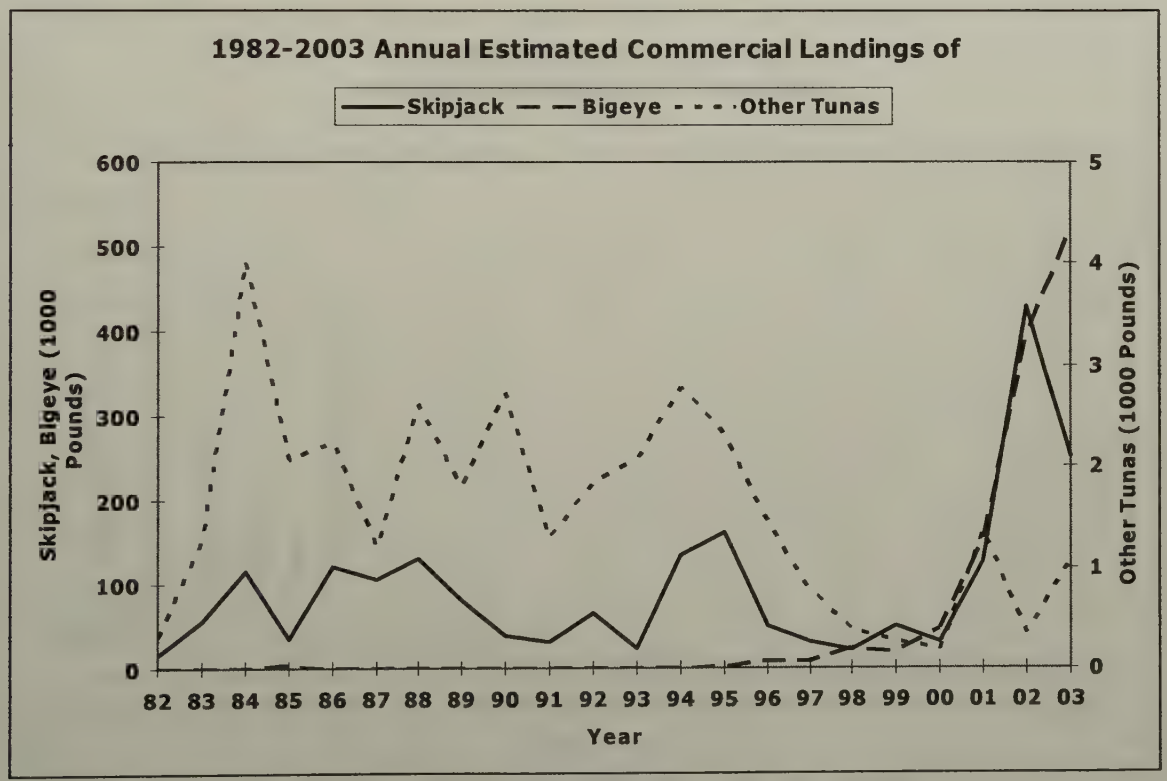


Figure A-3-6

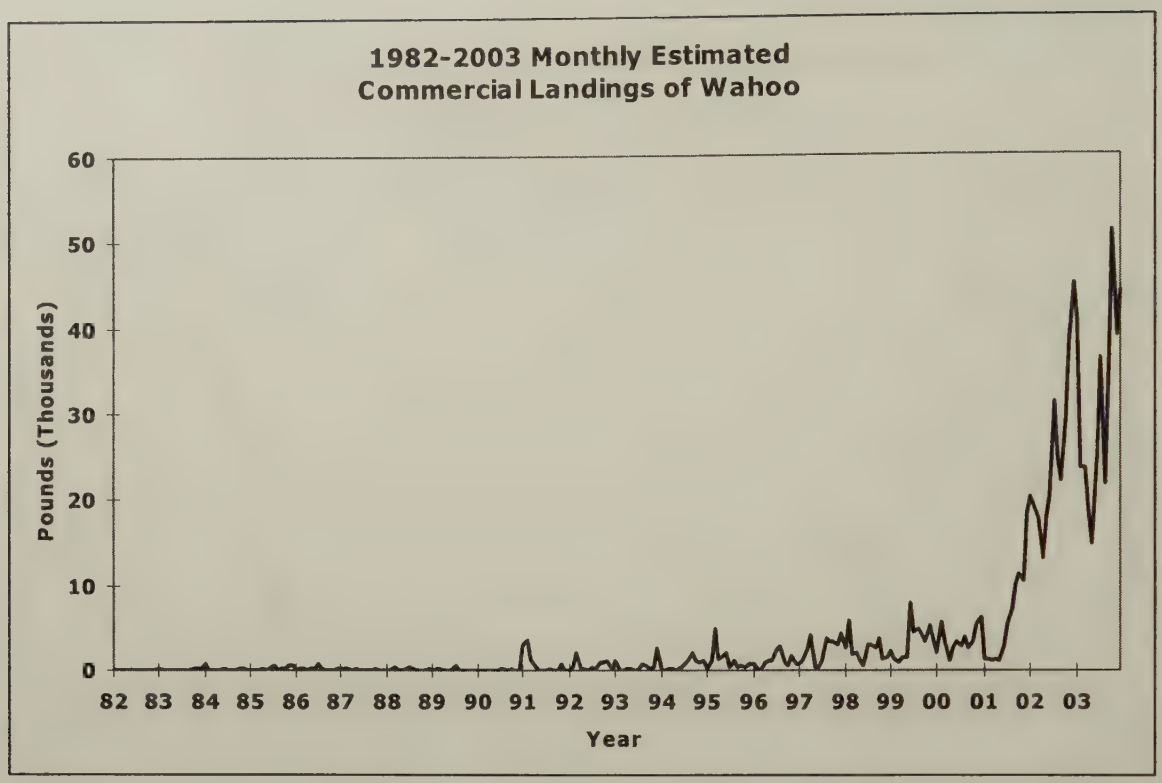


Figure A-4-1

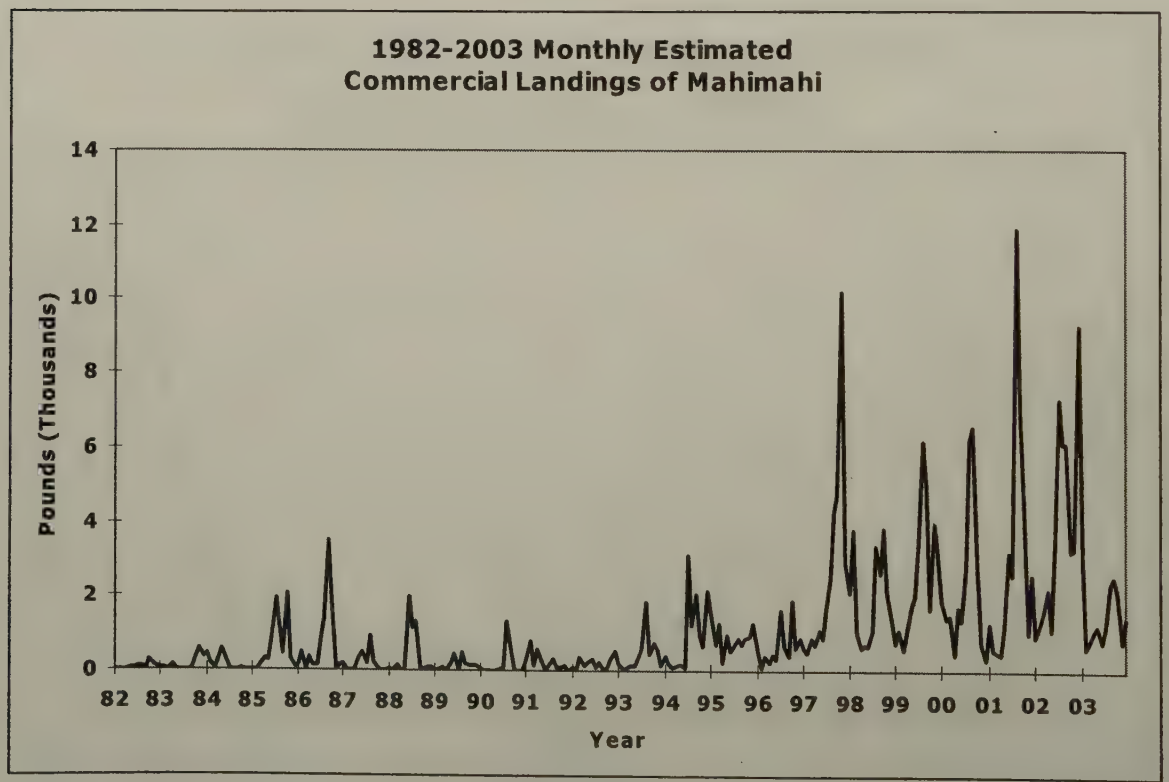


Figure A-4-2

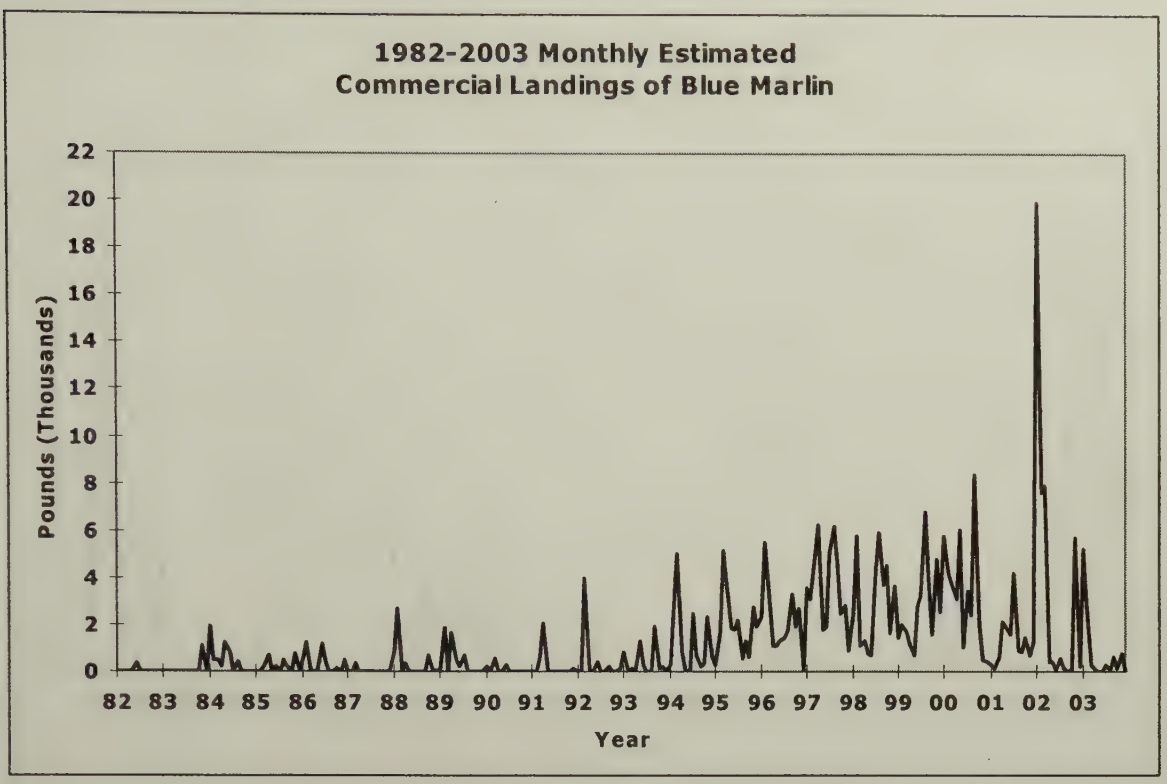


Figure A.4.3

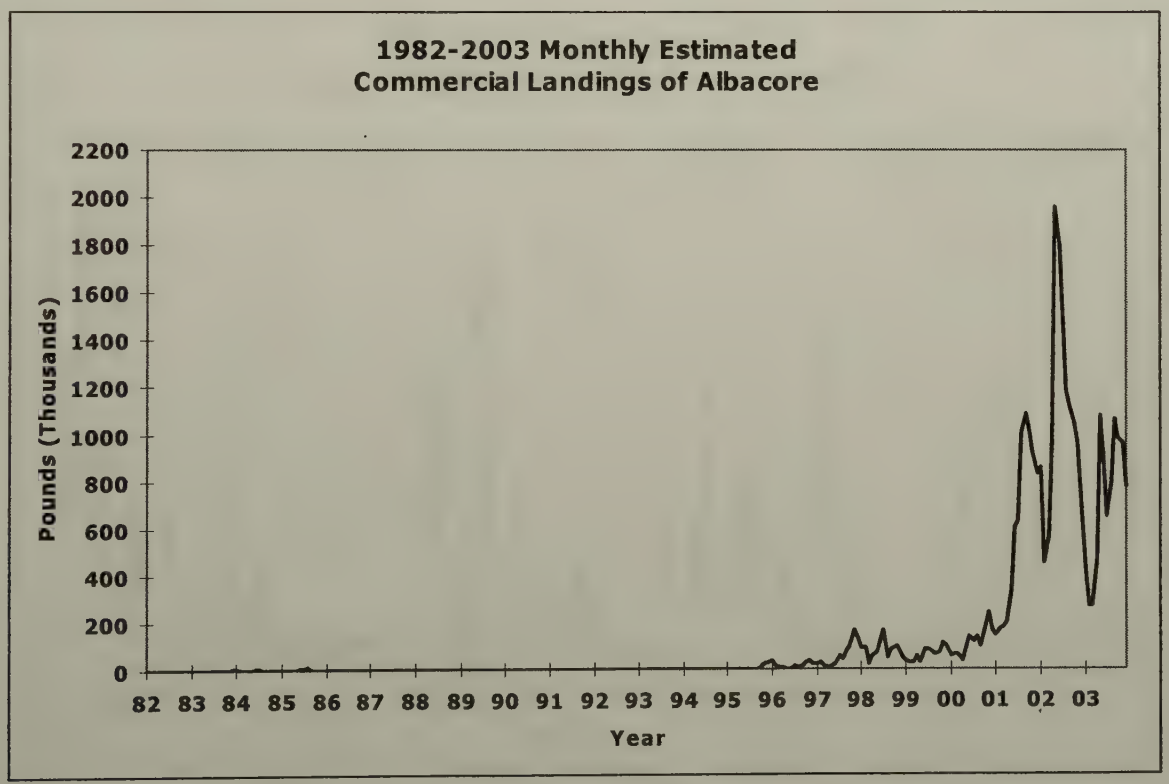


Figure A-4-4

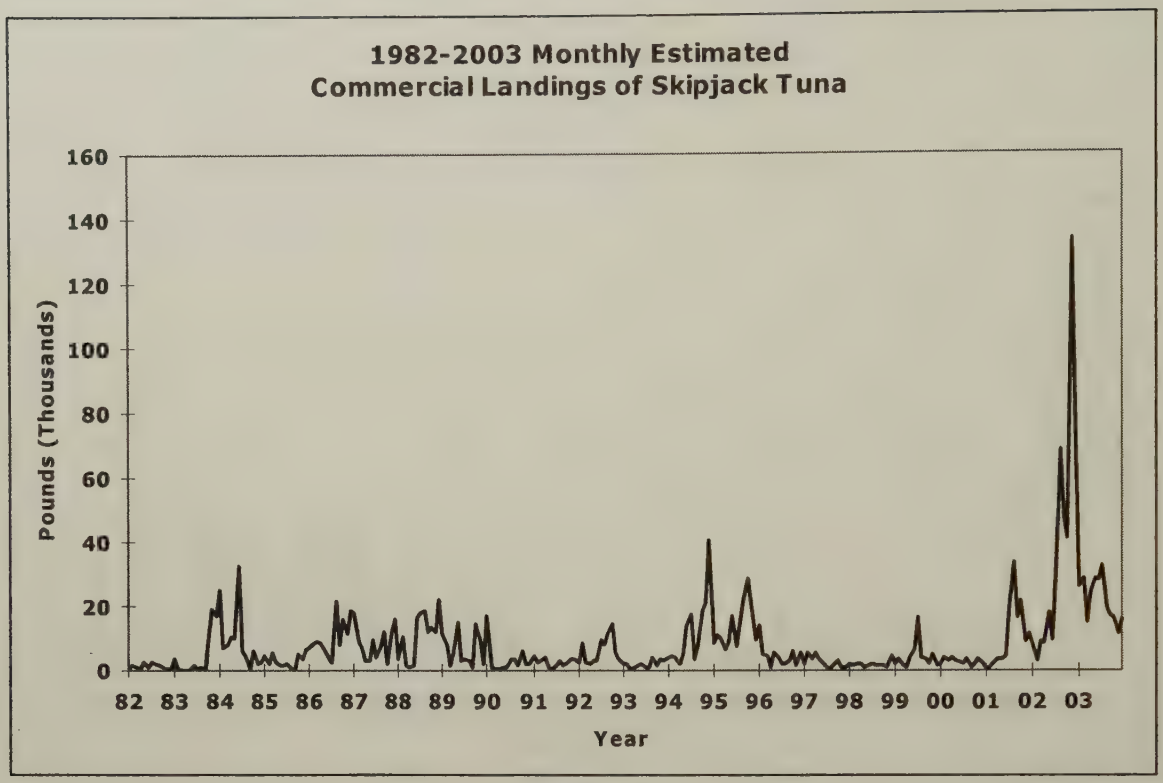


Figure A-4-5

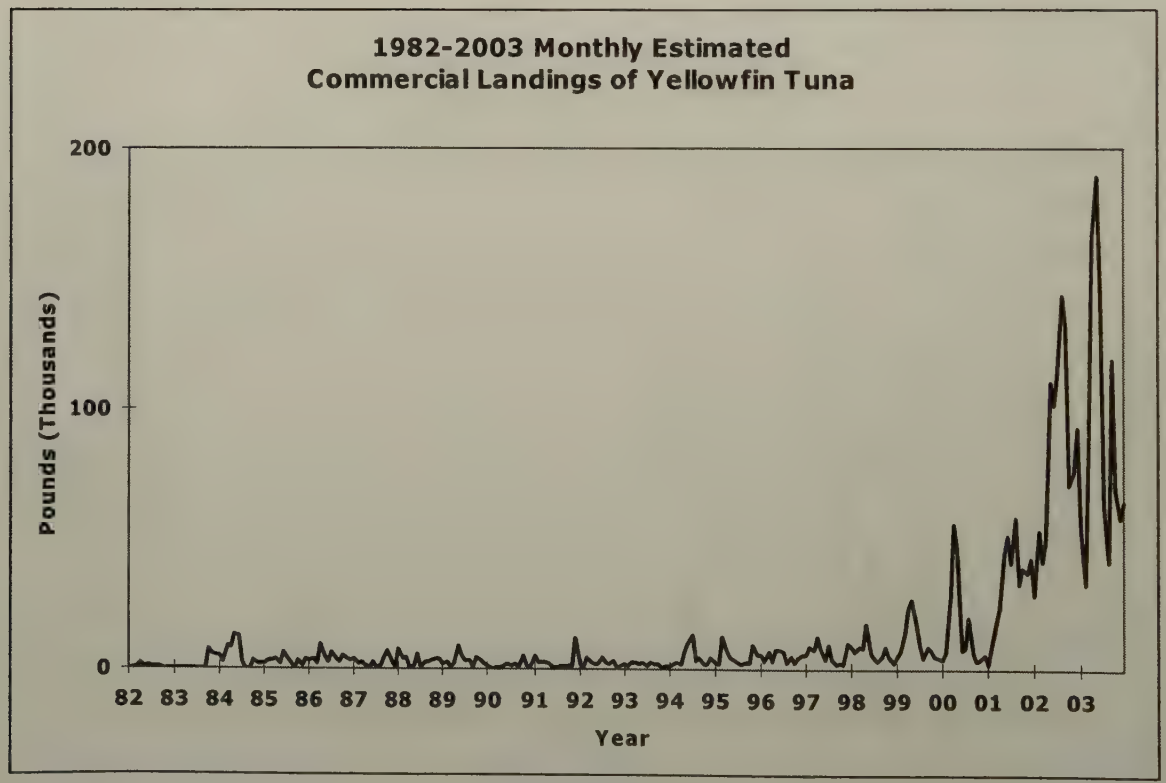


Figure A-4-6

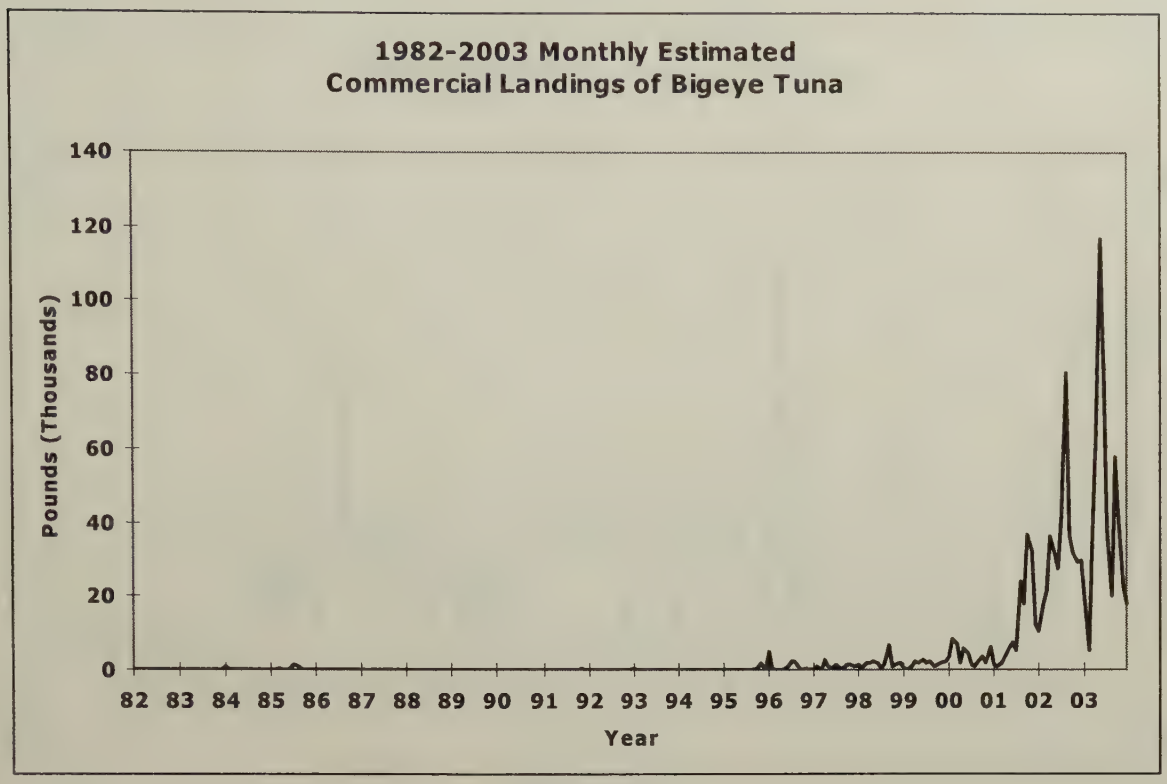


Figure A-4-7

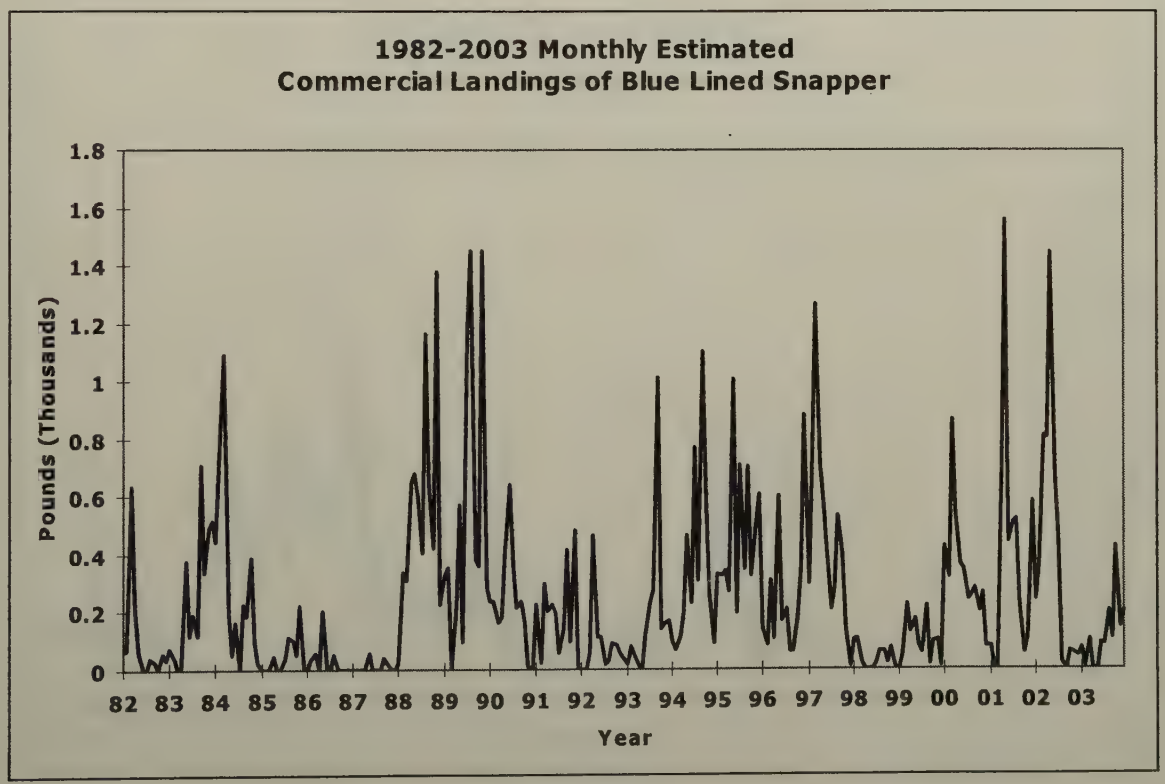


Figure A-4-8

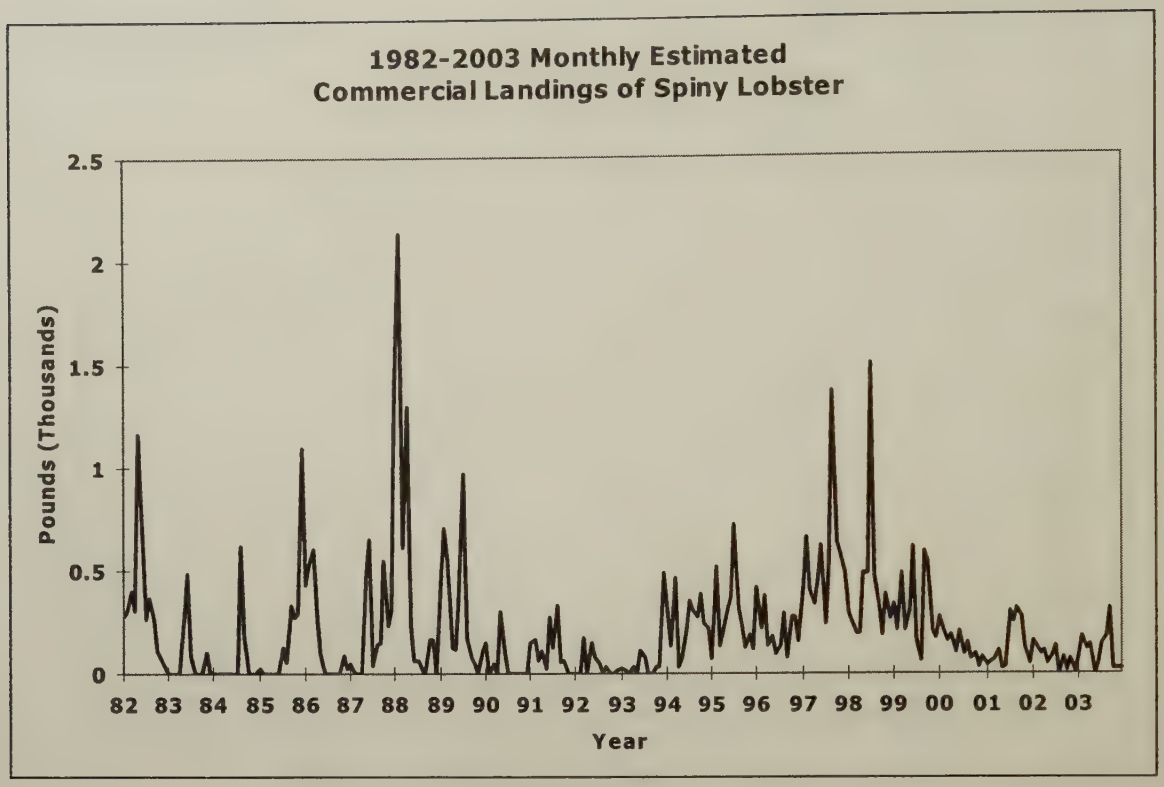


Figure A-4-9

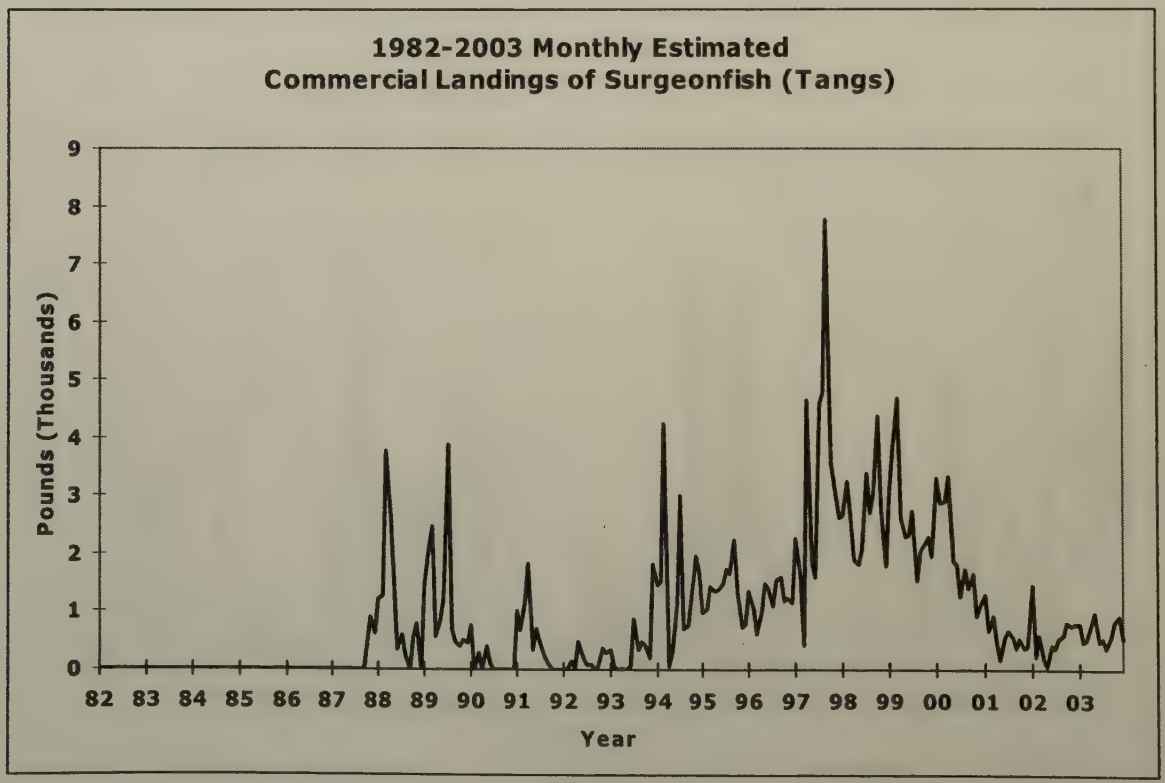


Figure A-4-10

COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS
2003 FISHERY STATISTICS

Compiled by

Division of Fish and Wildlife

and the

Western Pacific Fishery Information Network

May 2005

CONTENTS

	Page
Introduction	B.1
Data Collecting System	B.2
Data Processing System	B.3
Data Reporting System	B.3
Tables	B.6
Figures	B.19

LIST OF CNMI SUMMARY TABLES

Table	Title	Page
B-1	2003 Estimated Commercial Landings	B.6
B-2	January 2003 Estimated Commercial Landings	B.7
B-3	February 2003 Estimated Commercial Landings	B.8
B-4	March 2003 Estimated Commercial Landings	B.9
B-5	April 2003 Estimated Commercial Landings	B.10
B-6	May 2003 Estimated Commercial Landings	B.11
B-7	June 2003 Estimated Commercial Landings	B.12
B-8	July 2003 Estimated Commercial Landings	B.13
B-9	August 2003 Estimated Commercial Landings	B.14
B-10	September 2003 Estimated Commercial Landings	B.15
B-11	October 2003 Estimated Commercial Landings	B.16
B-12	November 2003 Estimated Commercial Landings	B.17
B-13	December 2003 Estimated Commercial Landings	B.18

LIST OF CNMI FIGURES

Figure	Title	Page
B-1-1	2003 Fisheries Categories: Monthly Estimated Commercial Landings of Pelagic, Bottom, Reef, and Other Fish	B.19
B-1.2	2003 Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	B.19
B-1-3	2003 Monthly Estimated Commercial Landings of Mahimahi, Wahoo, and Billfish	B.20
B-1-4	2003 Monthly Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	B.20
B-1-5	2003 Monthly Estimated Commercial Landings of Bigeye Scad, Emperors, and Onaga	B.21
B-2-1	1981-2003 Average Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	B.21
B-2-2	1981-2003 Average Monthly Estimated Commercial Landings of Mahimahi, Wahoo, and Billfish	B.22
B-2-3	1981-2003 Average Monthly Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	B.22
B-2-4	1981-2003 Average Monthly Estimated Commercial Landings of Bigeye Scad, Emperors, and Onaga	B.23
B-2-5	1981-2003 Average Monthly Estimated Commercial Landings of Parrotfish, Spiny Lobster, and Rabbitfish	B.23
B-3-1	1981-2003 Annual Trend of Fisheries Categories: Estimated Commercial Landings of Pelagic, Bottom, Reef, and Other Fish	B.24
B-3-2	1981-2003 Annual Total Estimated Commercial Landings (Pounds and Dollars)	B.24
B-3-3	1981-2003 Annual Estimated Commercial Landings of Tunas, PMUS, and BMUS	B.25
B-3-4	1981-2003 Annual Estimated Commercial Landings of Mahimahi, Wahoo, and Billfish	B.25
B-3-5	1981-2003 Annual Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	B.26
B-3-6	1981-2003 Annual Estimated Commercial Landings of Bigeye Scad, Emperors, and Onaga	B.26
B-3-7	1981-2003 Annual Estimated Commercial Landings of Parrotfish, Spiny Lobster, and Rabbitfish	B.27

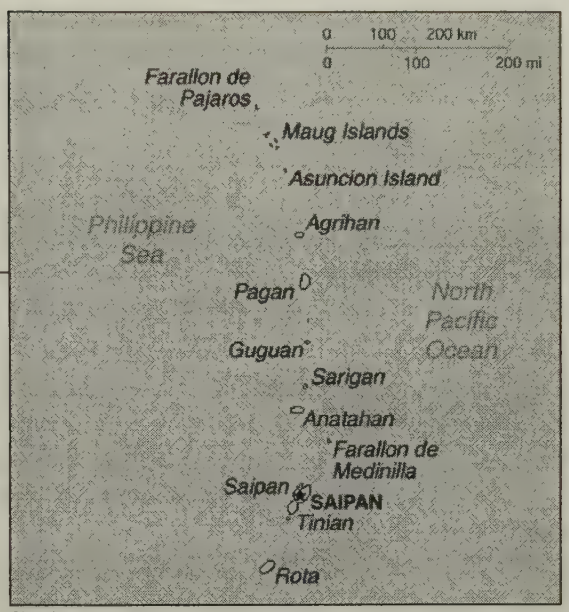
LIST OF CNMI FIGURES (cont.)

Figure	Title	Page
B-4-1	1981-2003 Monthly Estimated Commercial Landings of Wahoo	B.27
B-4-2	1981-2003 Monthly Estimated Commercial Landings of Mahimahi	B.28
B-4-3	1981-2003 Monthly Estimated Commercial Landings of Parrotfish	B.28
B-4-4	1981-2003 Monthly Estimated Commercial Landings of Dogtooth Tuna	B.29
B-4-5	1981-2003 Monthly Estimated Commercial Landings of Skipjack Tuna	B.29
B-4-6	1981-2003 Monthly Estimated Commercial Landings of Yellowfin Tuna	B.30
B-4-7	1981-2003 Monthly Estimated Commercial Landings of Emperors (Misc.)	B.30
B-4-8	1981-2003 Monthly Estimated Commercial Landings of Bigeye Scad	B.31
B-4-9	1981-2003 Monthly Estimated Commercial Landings of Onaga	B.31
B-4-10	1981-2003 Monthly Estimated Commercial Landings of Spiny Lobster	B.32
B-4-11	1981-2003 Monthly Estimated Commercial Landings of Rabbitfish	B.32

COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS
2003 FISHERY STATISTICS

INTRODUCTION

Location: 14° to 21°N latitude,
145°E longitude
Main Islands: Saipan, Rota, Tinian
Population: about 78,000; (*The World Factbook*, 2004)
Economy: tourism, agriculture, garment production



CNMI
Source: <http://www.cia.gov/cia/publications/factbook/geos/cq.html>; *The World Factbook*

The chief domestic commercial fishery of the CNMI is a small boat, one-day troll fishery, and most of the boats are 12- to 24-foot outboard-powered, runabout-type vessels. However, a few larger boats are used mainly for bottomfish fishing around the islands north of Saipan, and a small charter fleet also exists.

During 2003, 57 vessels were registered as full-time commercial fishing boats, and 38 were part-time. Also, 22 vessels were registered as "charter" for their primary use, and 344 boats were non-fishing or recreational.

Trolling is by far the most common fishing method, but bottomfishing and reef fishing are also popular. Reef fish make up a significant portion of the total commercial catch and are an important component of the local diet. In recent years, several larger boats started fishing more intensively for bottomfish around the islands north of Saipan. While the vast majority of the domestic catch is consumed locally, there have been some exports to Guam, Hawaii, and Japan.

In 1982 WPacFIN significantly improved data collecting and processing systems by providing computer hardware, software, and training. Since then numerous system upgrades and replacements have been implemented to keep up with changing technologies and the increasing demands for improved fisheries statistics.

DATA COLLECTING SYSTEM

The Division of Fish and Wildlife (DFW) has been collecting fishery statistics on the commercial fishing fleet of Saipan since the mid-1970s. With the assistance of the NMFS WPacFIN program, DFW also expanded its fisheries monitoring programs to include Rota and Tinian, the other two major inhabited islands in the CNMI.

DFW's principal method of collecting domestic commercial fisheries data is a dealer invoicing system, sometimes referred to as a "trip ticket" system. The DFW provides numbered two-part invoices to all purchasers of fresh fishery products (including hotels, restaurants, stores, fish markets, and roadside vendors). Dealers then complete an invoice each time they purchase fish directly from fishermen; one copy goes to DFW and one copy goes to their records.

Some advantages of this data collection method are that it is relatively inexpensive to implement and maintain, is fairly easy to get complete coverage of the commercial fisheries, and DFW can provide feedback to dealers and fishermen to ensure data accuracy and continued cooperation.

There are some disadvantages: 1) dependency on non-DFW personnel to identify the catch and record the data; 2) restrictions on the types of data that can be collected; 3) required education and cooperation of all fish purchasers; and 4) limited recordings of fish actually sold to dealers. Therefore, a potentially important portion of the total landings is unrecorded.

Since 1982 DFW has tried to minimize these disadvantages in several ways: 1) maintain a close working relationship with dealers; 2) add new dealers to their list and educate them; and 3) implement a creel survey to help estimate total catch, including recreational and subsistence catch.

The current system collects data from dealers in Saipan, where DFW estimates over 90% of all CNMI commercial landings are made. The DFW also estimates that the proportion of total commercial landings that have been recorded in the Saipan database since 1983 is about 90%. Previous volumes of FSWP reported only recorded landings, but in recent volumes the data have been adjusted to represent 100% coverage and are referenced as "Estimated Commercial Landings" in the tables and charts.

Information collected from the fishermen includes the following:

- Date
- Buyer's Name (dealer)
- Seller's Name (fisherman)
- Species
- Weight (pounds)
- Price per Pound
- Value
- Invoice Number

These data elements are collected for all purchases of fishery products; however, species identification is frequently made only to a group level, especially for reef fish.

DATA PROCESSING SYSTEM

At the beginning of each month, a DFW employee visits each of the dealers on Saipan to collect the previous month's invoices, to resolve problems, and to answer any questions the dealers may have. The invoices are then returned to the office for an initial visual edit during the coding process and entered into the Commercial Purchase System database. After the records are entered, reports are generated to help verify that all data were entered correctly. On a quarterly basis, copies of the database are sent to the Pacific Islands Fisheries Science Center, where the data are transferred to the central computer for additional verification before generating summary reports. These reports and databases are then ready for use by qualified WPacFIN participants.

DATA REPORTING SYSTEM

After all editing, adjustment, and quality control activities have been completed, monthly and annual summary reports by species are generated. Each monthly report contains a subtotal for the sum of all species for that month. Annual reports contain the total landings for each species and the total recorded landings for all species for the calendar year.

Please note that commercial landings data have been adjusted to reflect total coverage and are referenced as "Estimated Commercial Landings" in the charts and tables. Also, some of the charts in this volume are new or modified from earlier volumes.

To access the most up-to-date data and charts, please visit the WPacFIN Website at <http://www.pifsc.noaa.gov/wpacfin>.

The following species, species groups, and abbreviations are used in the tables and graphs of CNMI's data:

Note: Many of the species included in this report have been recategorized over the years. For example, the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the Pelagic Management Unit Species (PMUS) category. However, this FSWP volume will maintain the original species categorizations from previous volumes for comparative purposes. As such, tunas are kept in a separate category.

I. Pelagic Management Unit Species (PMUS)

Mahimahi (dolphin)
Marlin
Shortbill Spearfish
Sailfish
Wahoo
Sharks

II. Bottomfish Management Unit Species (BMUS)

Jacks (unclassified, but excluding bigeye scad)
Amberjack
Bottomfish (unclassified)
Ehu (red snapper)
Gindai (flower snapper)
Grouper (unclassified)
Kalekale (pink snapper)
Lehi (silverjaw snapper)
Onaga (red or longtail snapper)
Opakapaka (pink snapper)
Uku (gray snapper)
Emperorfish

III. Billfish

Marlin (probably all blue marlin but could also include the rarely landed striped and black marlins)
Shortbill Spearfish
Sailfish

IV. Tunas

Tunas (unclassified)
Skipjack Tuna
Yellowfin Tuna

IV. Tunas (cont.)

Dogtooth Tuna

V. Other Tuna

The above tunas excluding skipjack and yellowfin tunas

VI. Fisheries Categories

A. Pelagics

All PMUS and tuna species plus the following:
Troll Fish (unclassified)
Barracuda
Rainbow Runner

B. Bottomfish

Same as BMUS

C. Reef Fish

Reef Fish (unclassified)
Giant Wrasse
Rabbitfish (hitting, hitting feda, menahac, and sesjun)
Rudderfish
Squirrelfish
Parrotfish
Snapper
Surgeonfish
Unicornfish
Goatfish

D. Other

Miscellaneous
Mullet
Milkfish
Crabs (unclassified)
Lobster
Octopus
Turtle
Bigeye Scad
Eels
Invertebrates (unclassified)
Coconut Crab
Shrimp
Squid
Seaweeds
Imported

Table B-1
2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Miscellaneous	38	$75	$2.00
Bigeye Scad	15,119	$36,074	$2.39
Jacks (Misc.)	3,685	$8,374	$2.27
Mullet	8	$20	$2.50
Blackjack	138	$337	$2.45
Giant Trevally	26	$66	$2.50
Brassy Trevally	725	$1,794	$2.47
Bottom Fish	6,526	$17,549	$2.69
Sickle Pomfret	772	$1,791	$2.32
Ehu (Red Snapper)	729	$1,918	$2.63
Gindai (Flower Snap)	2,550	$7,706	$3.02
Grouper (Misc.)	4,906	$12,711	$2.59
Kalikali (Yellowtail)	3,090	$8,861	$2.87
Onaga (Red Snapper)	6,649	$22,978	$3.46
Opakapaka (Pink Snp)	2,262	$7,424	$3.28
Jobfish (Uku)	597	$1,407	$2.36
Silvermouth (Deep Lehi)	1,624	$4,597	$2.83
Amberjack	322	$835	$2.59
Blueline Snapper	75	$177	$2.34
Reef Fish	83,773	$213,862	$2.55
Rabbitfish	7,294	$24,135	$3.31
Emperor (Mafute/misc.)	7,999	$22,392	$2.80
Parrotfish (Misc.)	1,372	$3,851	$2.81
Surgeonfish (Misc.)	11	$21	$2.00
Orangespine Unicornfish	143	$347	$2.44
Unicornfish (Misc.)	413	$1,002	$2.43
Goatfish (Misc.)	259	$767	$2.96
Mahimahi	7,357	$16,617	$2.26
Blue Marlin	1,130	$1,929	$1.71
Sailfish	137	$214	$1.56
Rainbow Runner	4,385	$8,414	$1.92
Wahoo	7,950	$16,213	$2.04
Skipjack Tuna	171,574	$332,857	$1.94
Dogtooth Tuna	7,842	$12,369	$1.58
Yellowfin Tuna	26,042	$55,059	$2.11
Saba (Kawakawa)	1,228	$2,183	$1.78
Spiny Lobster	738	$4,633	$6.28
Octopus	1,491	$3,238	$2.17
Squid	4	$8	$2.00
TOTAL	380,982	$854,802	$2.24

Table B-2
January 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	41	$103	$2.50
Jacks (Misc.)	1,144	$2,286	$2.00
Brassy Trevally	26	$59	$2.25
Bottom Fish	343	$1,178	$3.44
Sickle Pomfret	31	$31	$1.00
Ehu (Red Snapper)	134	$305	$2.28
Gindai (Flower Snap)	201	$601	$2.99
Grouper (Misc.)	611	$1,463	$2.40
Onaga (Red Snapper)	1,818	$5,897	$3.24
Opakapaka (Pink Snp)	103	$241	$2.35
Jobfish (Uku)	33	$73	$2.23
Silvermouth (Deep Lehi)	606	$1,621	$2.68
Blueline Snapper	51	$128	$2.50
Reef Fish	11,796	$31,109	$2.64
Rabbitfish	900	$3,028	$3.37
Emperor (Mafute/misc.)	1,020	$3,090	$3.03
Goatfish (Misc.)	9	$18	$2.00
Mahimahi	1,773	$3,986	$2.25
Rainbow Runner	106	$233	$2.21
Wahoo	325	$647	$1.99
Skipjack Tuna	12,486	$29,175	$2.34
Dogtooth Tuna	1,493	$2,418	$1.62
Yellowfin Tuna	2,537	$5,315	$2.09
Saba (Kawakawa)	113	$213	$1.89
Spiny Lobster	60	$349	$5.81
Octopus	172	$355	$2.06
TOTAL	37,930	$93,919	$2.48

Table B-3
February 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	561	$1,365	$2.43
Jacks (Misc.)	388	$802	$2.07
Bottom Fish	146	$366	$2.50
Sickle Pomfret	19	$38	$2.00
Gindai (Flower Snap)	216	$647	$3.00
Grouper (Misc.)	734	$1,786	$2.43
Onaga (Red Snapper)	1,265	$4,307	$3.41
Opakapaka (Pink Snp)	277	$936	$3.39
Jobfish (Uku)	16	$33	$2.00
Silvermouth (Deep Lehi)	72	$180	$2.50
Amberjack	28	$69	$2.50
Reef Fish	11,108	$28,302	$2.55
Rabbitfish	1,550	$5,167	$3.33
Emperor (Mafute/misc.)	799	$2,359	$2.95
Parrotfish (Misc.)	133	$333	$2.50
Unicornfish (Misc.)	71	$177	$2.48
Mahimahi	1,013	$2,031	$2.01
Rainbow Runner	280	$550	$1.97
Wahoo	1,096	$2,223	$2.03
Skipjack Tuna	12,659	$25,034	$1.98
Dogtooth Tuna	1,467	$2,340	$1.59
Yellowfin Tuna	1,507	$3,022	$2.00
Saba (Kawakawa)	11	$17	$1.50
Spiny Lobster	50	$300	$6.00
Octopus	243	$506	$2.08
TOTAL	35,709	$82,888	$2.32

Table B-4
March 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Miscellaneous	38	$75	$2.00
Bigeye Scad	167	$450	$2.69
Jacks (Misc.)	264	$659	$2.50
Brassy Trevally	53	$166	$3.17
Bottom Fish	521	$1,442	$2.77
Ehu (Red Snapper)	14	$41	$3.00
Onaga (Red Snapper)	128	$449	$3.50
Opakapaka (Pink Snp)	9	$31	$3.50
Jobfish (Uku)	66	$133	$2.00
Reef Fish	8,571	$23,630	$2.76
Rabbitfish	721	$2,352	$3.26
Emperor (Mafute/misc.)	1,041	$2,910	$2.80
Parrotfish (Misc.)	156	$464	$2.97
Surgeonfish (Misc.)	11	$21	$2.00
Orangespine Unicornfish	60	$150	$2.50
Unicornfish (Misc.)	31	$78	$2.50
Mahimahi	1,641	$3,853	$2.35
Blue Marlin	418	$626	$1.50
Rainbow Runner	143	$287	$2.01
Wahoo	1,996	$3,251	$1.63
Skipjack Tuna	19,930	$39,955	$2.00
Dogtooth Tuna	2,241	$3,219	$1.44
Yellowfin Tuna	1,342	$2,913	$2.17
Saba (Kawakawa)	138	$206	$1.50
Spiny Lobster	60	$333	$5.55
Octopus	152	$326	$2.15
TOTAL	39,910	$88,020	$2.21

Table B-5
April 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	21	$63	$3.00
Jacks (Misc.)	23	$68	$3.00
Bottom Fish	238	$564	$2.37
Sickle Pomfret	50	$75	$1.50
Ehu (Red Snapper)	70	$175	$2.50
Gindai (Flower Snap)	437	$1,262	$2.89
Grouper (Misc.)	476	$1,221	$2.56
Onaga (Red Snapper)	1,182	$4,161	$3.52
Jobfish (Uku)	19	$38	$2.00
Reef Fish	6,400	$16,529	$2.58
Rabbitfish	345	$1,152	$3.34
Emperor (Mafute/misc.)	661	$1,887	$2.85
Parrotfish (Misc.)	78	$258	$3.32
Mahimahi	1,278	$2,967	$2.32
Blue Marlin	67	$101	$1.50
Sailfish	31	$55	$1.75
Rainbow Runner	88	$188	$2.14
Wahoo	483	$1,038	$2.15
Skipjack Tuna	16,059	$31,114	$1.94
Yellowfin Tuna	1,001	$2,043	$2.04
Spiny Lobster	48	$263	$5.53
Octopus	11	$25	$2.25
TOTAL	29,065	$65,243	$2.24

Table B-6
May 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	88	$158	$1.80
Jacks (Misc.)	636	$1,396	$2.19
Brassy Trevally	116	$274	$2.36
Bottom Fish	272	$698	$2.57
Sickle Pomfret	26	$53	$2.00
Ehu (Red Snapper)	96	$237	$2.46
Gindai (Flower Snap)	469	$1,406	$3.00
Grouper (Misc.)	544	$1,088	$2.00
Kalikali (Yellowtail)	363	$906	$2.50
Onaga (Red Snapper)	622	$2,194	$3.53
Opakapaka (Pink Snp)	66	$232	$3.50
Jobfish (Uku)	78	$213	$2.72
Silvermouth (Deep Lehi)	121	$364	$3.00
Amberjack	15	$38	$2.50
Blueline Snapper	12	$18	$1.50
Reef Fish	6,693	$17,377	$2.60
Rabbitfish	236	$801	$3.39
Emperor (Mafute/misc.)	129	$451	$3.50
Parrotfish (Misc.)	141	$502	$3.57
Mahimahi	214	$463	$2.16
Blue Marlin	111	$223	$2.00
Rainbow Runner	32	$71	$2.22
Wahoo	400	$707	$1.77
Skipjack Tuna	16,015	$29,961	$1.87
Dogtooth Tuna	903	$1,179	$1.31
Yellowfin Tuna	1,230	$2,071	$1.68
Saba (Kawakawa)	6	$9	$1.50
Spiny Lobster	29	$157	$5.45
TOTAL	29,663	$63,243	$2.13

Table B-7
June 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	422	$1,341	$3.18
Jacks (Misc.)	173	$519	$3.00
Brassy Trevally	94	$216	$2.31
Bottom Fish	981	$2,623	$2.67
Ehu (Red Snapper)	96	$263	$2.73
Gindai (Flower Snap)	230	$633	$2.75
Grouper (Misc.)	15	$41	$2.75
Kalikali (Yellowtail)	1,093	$3,555	$3.25
Onaga (Red Snapper)	41	$167	$4.11
Opakapaka (Pink Snp)	745	$2,583	$3.47
Jobfish (Uku)	159	$318	$2.00
Silvermouth (Deep Lehi)	59	$178	$3.00
Amberjack	23	$45	$2.00
Reef Fish	6,264	$15,048	$2.40
Rabbitfish	454	$1,463	$3.22
Emperor (Mafute/misc.)	397	$1,303	$3.28
Parrotfish (Misc.)	44	$109	$2.50
Mahimahi	234	$514	$2.20
Blue Marlin	104	$156	$1.50
Rainbow Runner	417	$871	$2.09
Wahoo	134	$268	$2.00
Skipjack Tuna	12,432	$23,337	$1.88
Dogtooth Tuna	101	$164	$1.62
Yellowfin Tuna	2,263	$4,799	$2.12
Saba (Kawakawa)	39	$39	$1.00
Spiny Lobster	349	$2,249	$6.45
Octopus	32	$69	$2.16
TOTAL	27,392	$62,871	$2.30

Table B-8
July 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	1,133	$2,797	$2.47
Jacks (Misc.)	188	$517	$2.75
Blackjack	124	$309	$2.50
Bottom Fish	1,010	$2,588	$2.56
Sickle Pomfret	86	$232	$2.69
Ehu (Red Snapper)	33	$88	$2.71
Gindai (Flower Snap)	149	$464	$3.12
Grouper (Misc.)	63	$156	$2.50
Kalikali (Yellowtail)	369	$967	$2.62
Onaga (Red Snapper)	172	$619	$3.60
Opakapaka (Pink Snp)	407	$1,178	$2.89
Jobfish (Uku)	63	$173	$2.74
Silvermouth (Deep Lehi)	323	$955	$2.96
Amberjack	38	$103	$2.75
Reef Fish	7,734	$18,910	$2.44
Rabbitfish	161	$518	$3.22
Emperor (Mafute/misc.)	406	$1,109	$2.73
Parrotfish (Misc.)	323	$726	$2.25
Orangespine Unicornfish	25	$63	$2.50
Unicornfish (Misc.)	245	$581	$2.37
Goatfish (Misc.)	25	$100	$4.00
Mahimahi	70	$175	$2.50
Blue Marlin	53	$106	$2.00
Sailfish	106	$159	$1.50
Rainbow Runner	283	$568	$2.01
Skipjack Tuna	10,634	$18,042	$1.70
Dogtooth Tuna	129	$274	$2.13
Yellowfin Tuna	2,139	$4,108	$1.92
Saba (Kawakawa)	368	$730	$1.99
Spiny Lobster	56	$394	$7.00
Octopus	99	$247	$2.50
TOTAL	27,010	$57,955	$2.15

Table B-9
August 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,059	$5,190	$2.52
Jacks (Misc.)	288	$774	$2.69
Brassy Trevally	162	$552	$3.41
Bottom Fish	679	$1,771	$2.61
Sickle Pomfret	40	$120	$3.00
Ehu (Red Snapper)	44	$115	$2.62
Gindai (Flower Snap)	188	$559	$2.98
Grouper (Misc.)	264	$738	$2.80
Kalikali (Yellowtail)	250	$796	$3.19
Onaga (Red Snapper)	169	$592	$3.50
Jobfish (Uku)	62	$155	$2.50
Silvermouth (Deep Lehi)	28	$99	$3.60
Amberjack	19	$47	$2.50
Reef Fish	5,570	$13,852	$2.49
Rabbitfish	545	$1,859	$3.41
Emperor (Mafute/misc.)	1,228	$3,605	$2.94
Parrotfish (Misc.)	102	$255	$2.50
Orangespine Unicornfish	18	$36	$2.00
Unicornfish (Misc.)	53	$133	$2.50
Mahimahi	3	$4	$1.50
Rainbow Runner	806	$1,598	$1.98
Wahoo	81	$184	$2.27
Skipjack Tuna	17,490	$33,380	$1.91
Dogtooth Tuna	77	$115	$1.50
Yellowfin Tuna	2,450	$5,339	$2.18
Saba (Kawakawa)	6	$13	$2.00
Spiny Lobster	19	$116	$6.00
Octopus	174	$375	$2.15
TOTAL	32,872	$72,371	$2.20

Table B-10
September 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	3,822	$8,966	$2.35
Jacks (Misc.)	376	$858	$2.28
Brassy Trevally	129	$230	$1.78
Bottom Fish	1,082	$3,064	$2.83
Sickle Pomfret	67	$150	$2.25
Ehu (Red Snapper)	15	$38	$2.50
Gindai (Flower Snap)	339	$1,186	$3.50
Grouper (Misc.)	1,182	$3,286	$2.78
Kalikali (Yellowtail)	261	$643	$2.46
Onaga (Red Snapper)	681	$2,476	$3.64
Opakapaka (Pink Snp)	225	$655	$2.91
Jobfish (Uku)	60	$150	$2.50
Silvermouth (Deep Lehi)	321	$920	$2.87
Amberjack	84	$251	$3.00
Reef Fish	3,702	$8,921	$2.41
Rabbitfish	359	$1,174	$3.27
Emperor (Mafute/misc.)	229	$617	$2.70
Parrotfish (Misc.)	135	$337	$2.49
Orangespine Unicornfish	39	$98	$2.50
Goatfish (Misc.)	14	$36	$2.50
Mahimahi	144	$287	$1.99
Blue Marlin	63	$125	$2.00
Rainbow Runner	343	$614	$1.79
Wahoo	1,099	$2,244	$2.04
Skipjack Tuna	17,904	$31,499	$1.76
Dogtooth Tuna	157	$256	$1.63
Yellowfin Tuna	2,563	$5,242	$2.05
Saba (Kawakawa)	89	$126	$1.42
Spiny Lobster	49	$341	$7.00
Octopus	48	$100	$2.11
TOTAL	35,580	$74,892	$2.10

Table B-11
October 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,786	$6,873	$2.47
Jacks (Misc.)	159	$398	$2.50
Giant Trevally	26	$66	$2.50
Brassy Trevally	145	$297	$2.05
Bottom Fish	955	$2,355	$2.47
Sickle Pomfret	44	$118	$2.69
Ehu (Red Snapper)	228	$656	$2.88
Gindai (Flower Snap)	311	$919	$2.95
Grouper (Misc.)	450	$1,266	$2.81
Kalikali (Yellowtail)	651	$1,643	$2.53
Onaga (Red Snapper)	347	$1,156	$3.34
Opakapaka (Pink Snp)	314	$1,098	$3.50
Silvermouth (Deep Lehi)	95	$281	$2.95
Amberjack	85	$186	$2.19
Reef Fish	5,010	$12,760	$2.55
Rabbitfish	559	$1,893	$3.38
Emperor (Mafute/misc.)	1,719	$4,083	$2.38
Parrotfish (Misc.)	71	$204	$2.86
Unicornfish (Misc.)	9	$23	$2.50
Goatfish (Misc.)	145	$450	$3.10
Mahimahi	233	$383	$1.65
Rainbow Runner	1,568	$2,773	$1.77
Wahoo	818	$2,035	$2.49
Skipjack Tuna	13,187	$23,278	$1.77
Dogtooth Tuna	361	$652	$1.81
Yellowfin Tuna	5,440	$11,682	$2.15
Saba (Kawakawa)	180	$263	$1.46
Spiny Lobster	19	$131	$7.00
Octopus	151	$336	$2.22
TOTAL	36,063	$78,258	$2.17

Table B-12
November 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,489	$5,396	$2.17
Jacks (Misc.)	46	$98	$2.11
Mullet	8	$20	$2.50
Blackjack	14	$28	$2.00
Bottom Fish	78	$215	$2.77
Sickle Pomfret	214	$471	$2.20
Gindai (Flower Snap)	11	$29	$2.61
Blueline Snapper	12	$31	$2.50
Reef Fish	4,326	$10,895	$2.52
Rabbitfish	704	$2,298	$3.26
Emperor (Mafute/misc.)	112	$278	$2.49
Parrotfish (Misc.)	171	$601	$3.52
Unicornfish (Misc.)	3	$10	$3.25
Goatfish (Misc.)	41	$101	$2.47
Mahimahi	245	$595	$2.43
Blue Marlin	315	$593	$1.88
Rainbow Runner	226	$447	$1.97
Wahoo	647	$1,348	$2.08
Skipjack Tuna	10,689	$22,068	$2.06
Dogtooth Tuna	189	$370	$1.96
Yellowfin Tuna	1,894	$4,534	$2.39
Saba (Kawakawa)	38	$75	$2.00
Octopus	303	$669	$2.21
Squid	4	$8	$2.00
TOTAL	22,778	$51,175	$2.25

Table B-13
December 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	1,530	$3,373	$2.20
Bottom Fish	221	$684	$3.09
Sickle Pomfret	196	$503	$2.57
Grouper (Misc.)	569	$1,666	$2.93
Kalikali (Yellowtail)	105	$350	$3.34
Onaga (Red Snapper)	226	$960	$4.26
Opakapaka (Pink Snp)	118	$470	$4.00
Jobfish (Uku)	41	$124	$3.00
Amberjack	32	$97	$3.00
Reef Fish	6,598	$16,530	$2.51
Rabbitfish	760	$2,431	$3.20
Emperor (Mafute/misc.)	258	$700	$2.71
Parrotfish (Misc.)	19	$63	$3.25
Goatfish (Misc.)	25	$63	$2.50
Mahimahi	510	$1,359	$2.66
Rainbow Runner	94	$213	$2.26
Wahoo	870	$2,269	$2.61
Skipjack Tuna	12,090	$26,016	$2.15
Dogtooth Tuna	726	$1,381	$1.90
Yellowfin Tuna	1,676	$3,992	$2.38
Saba (Kawakawa)	241	$493	$2.04
Octopus	106	$229	$2.15
TOTAL	27,011	$63,965	$2.37

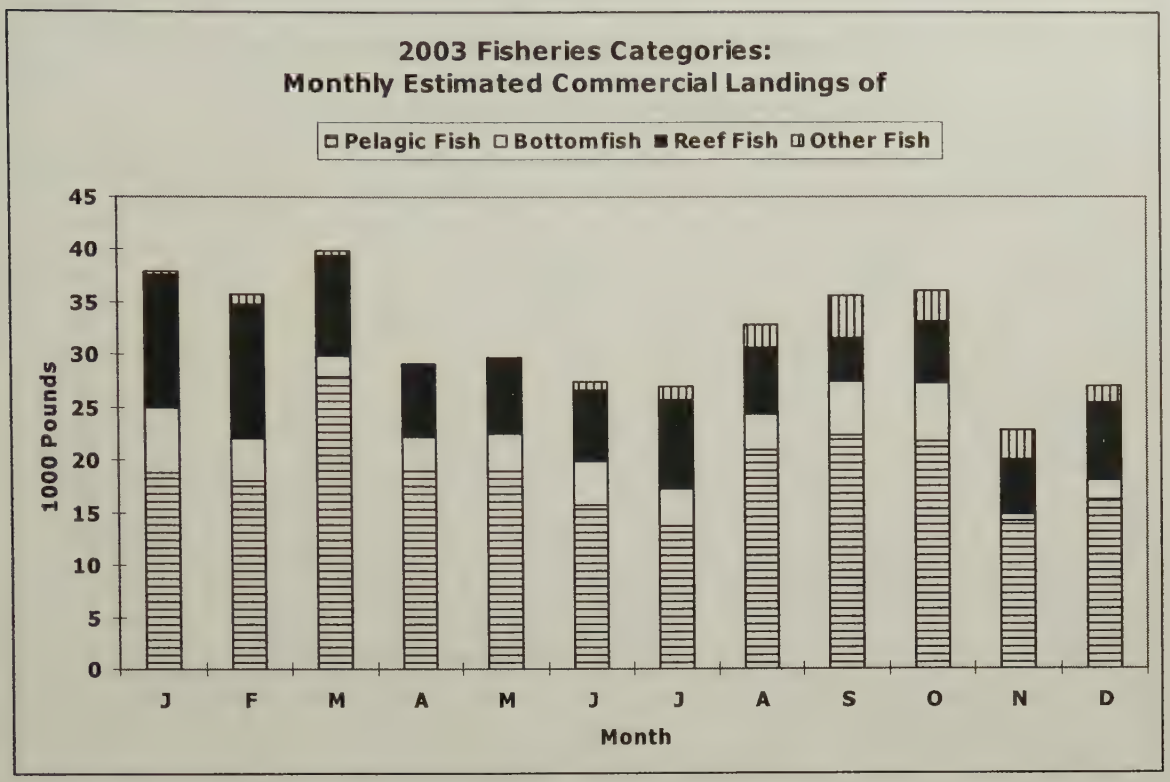


Figure B-1-1

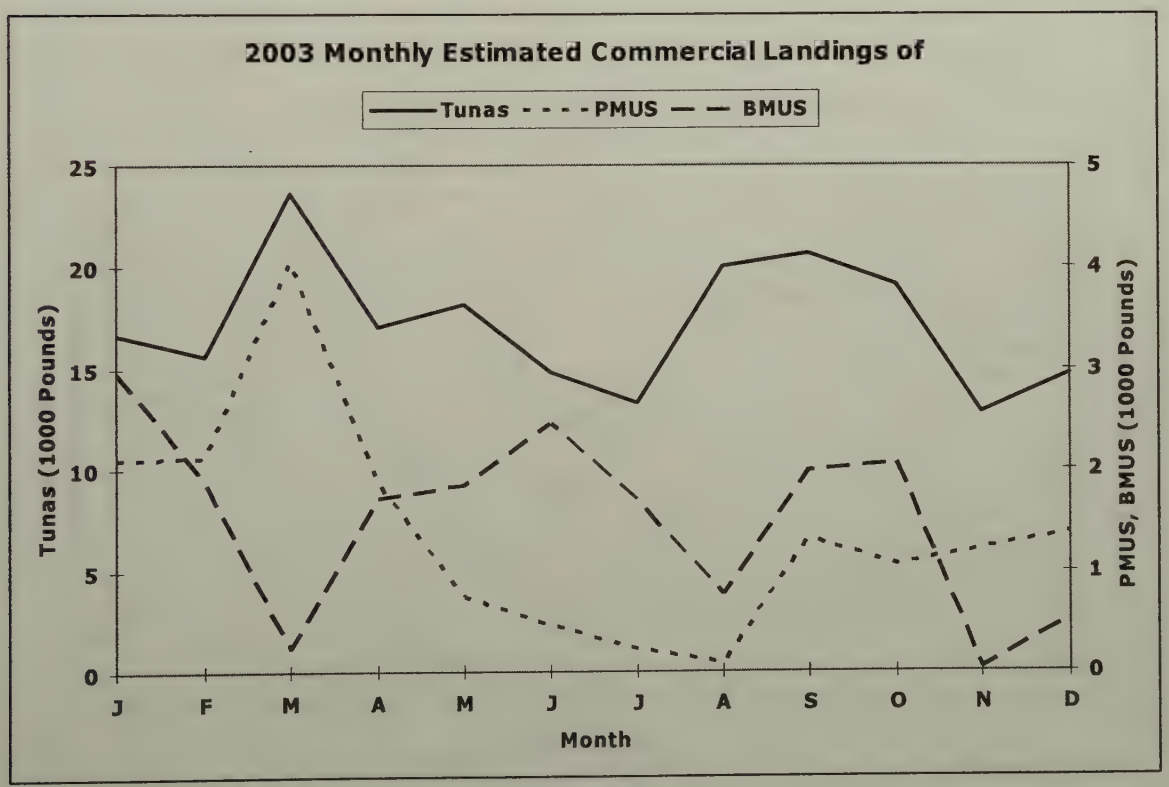


Figure B-1-2

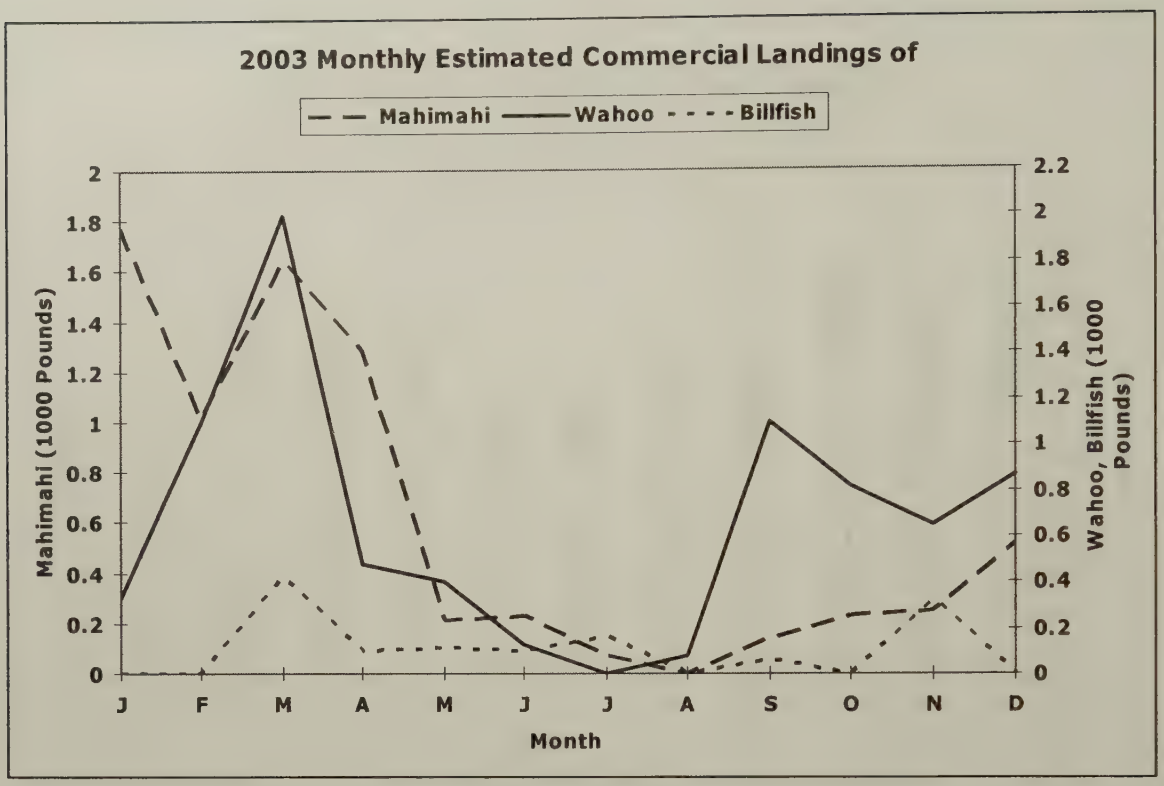


Figure B-1-3

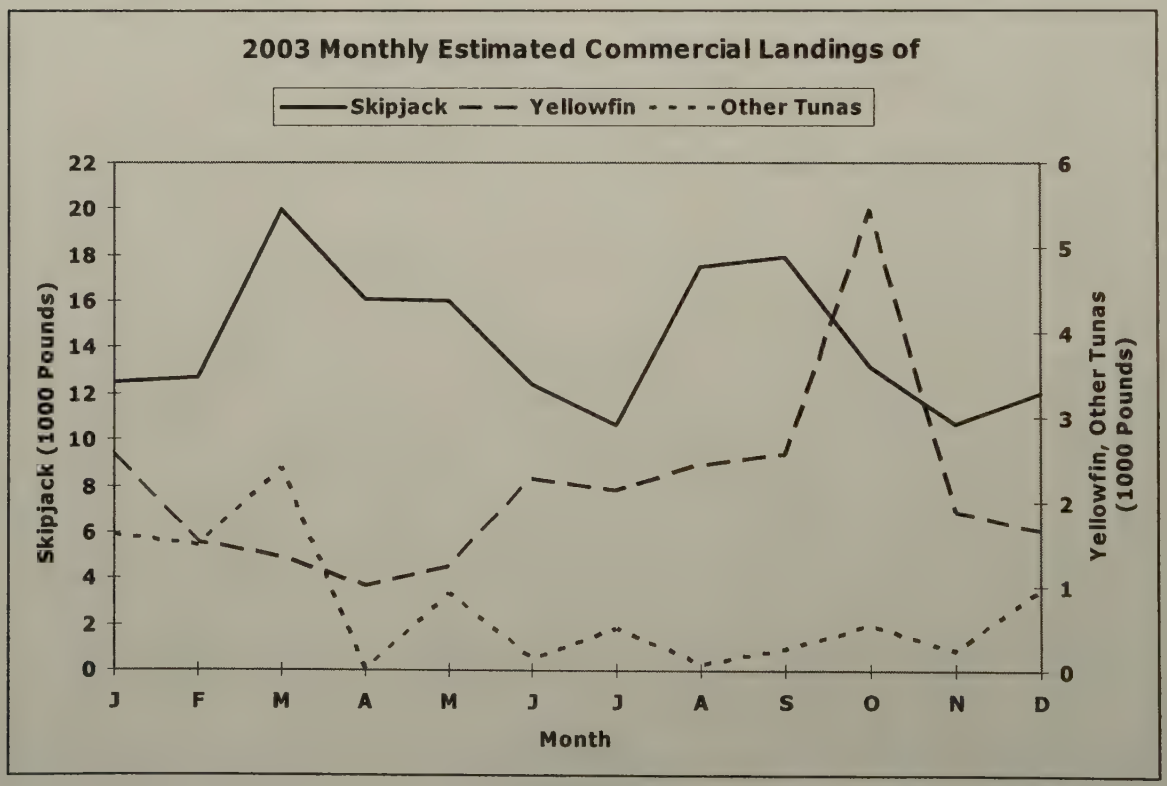


Figure B-1-4

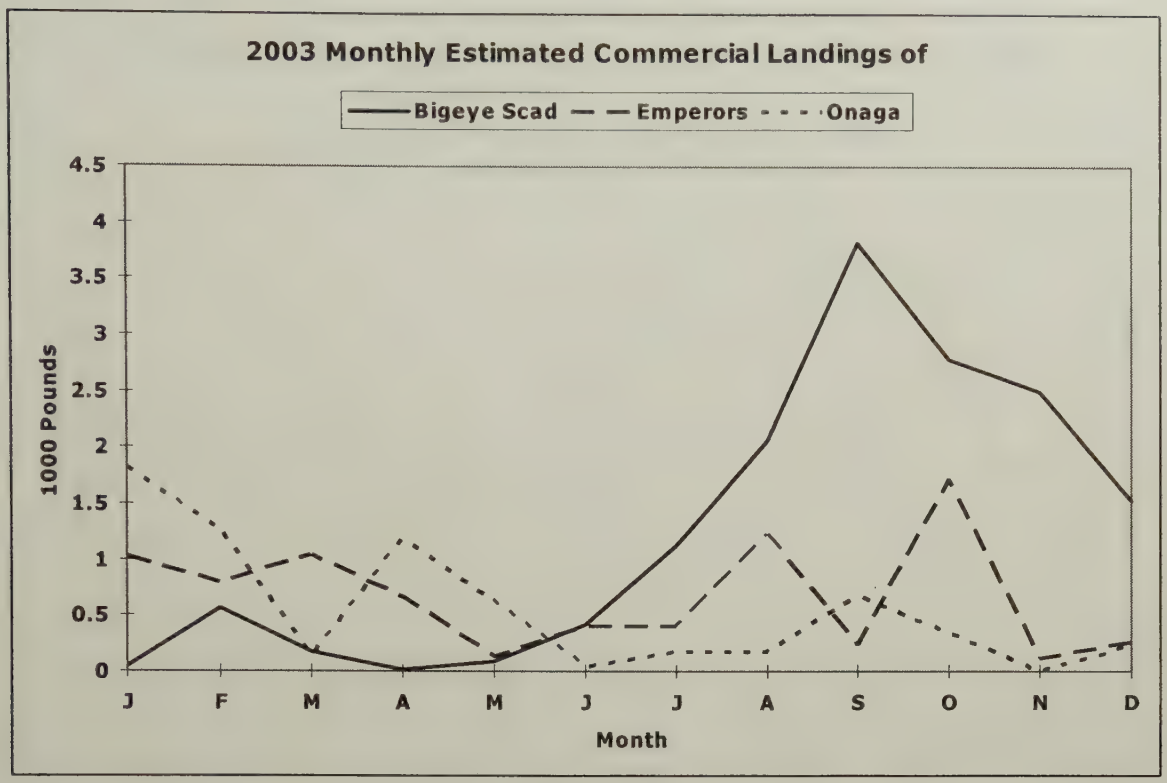


Figure B-1-5

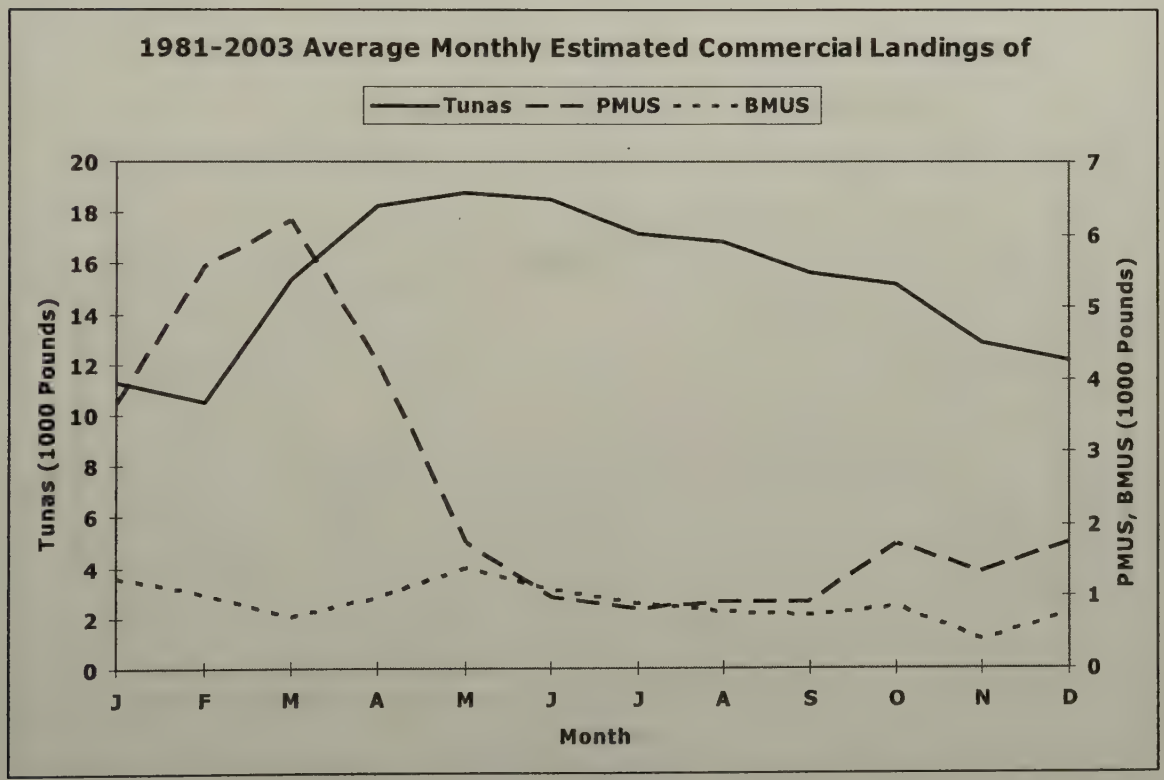


Figure B-2-1

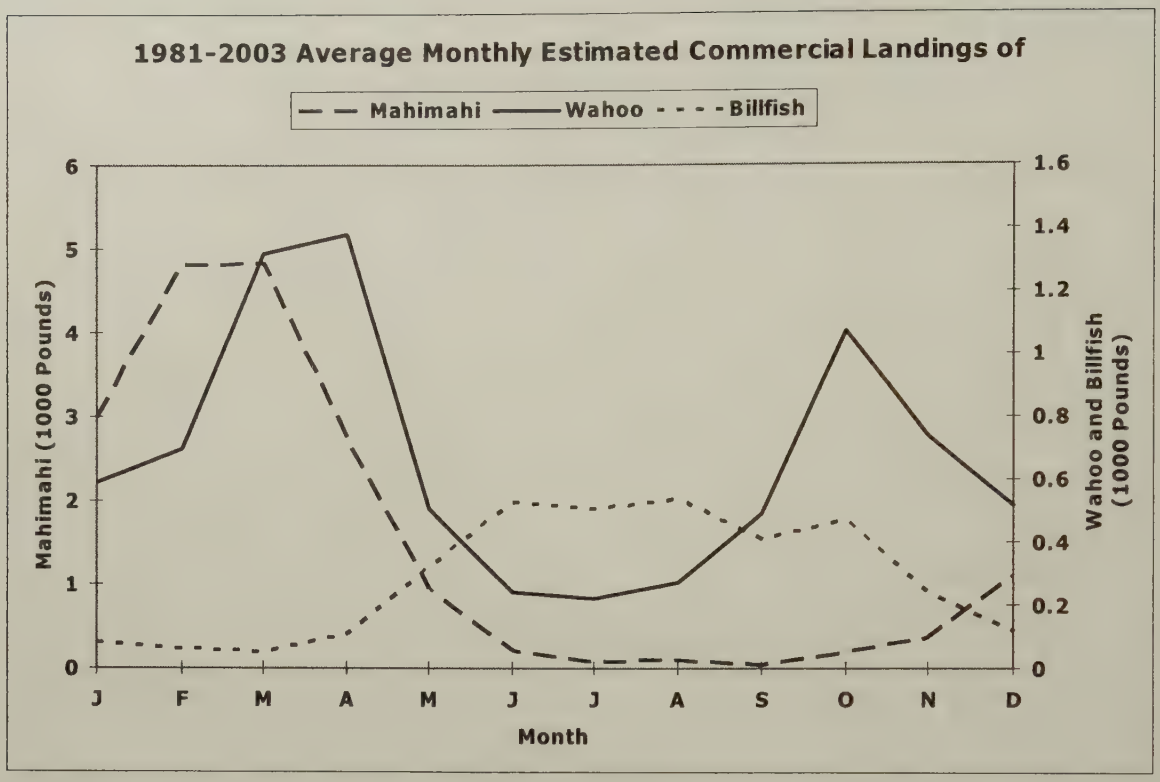


Figure B-2-2

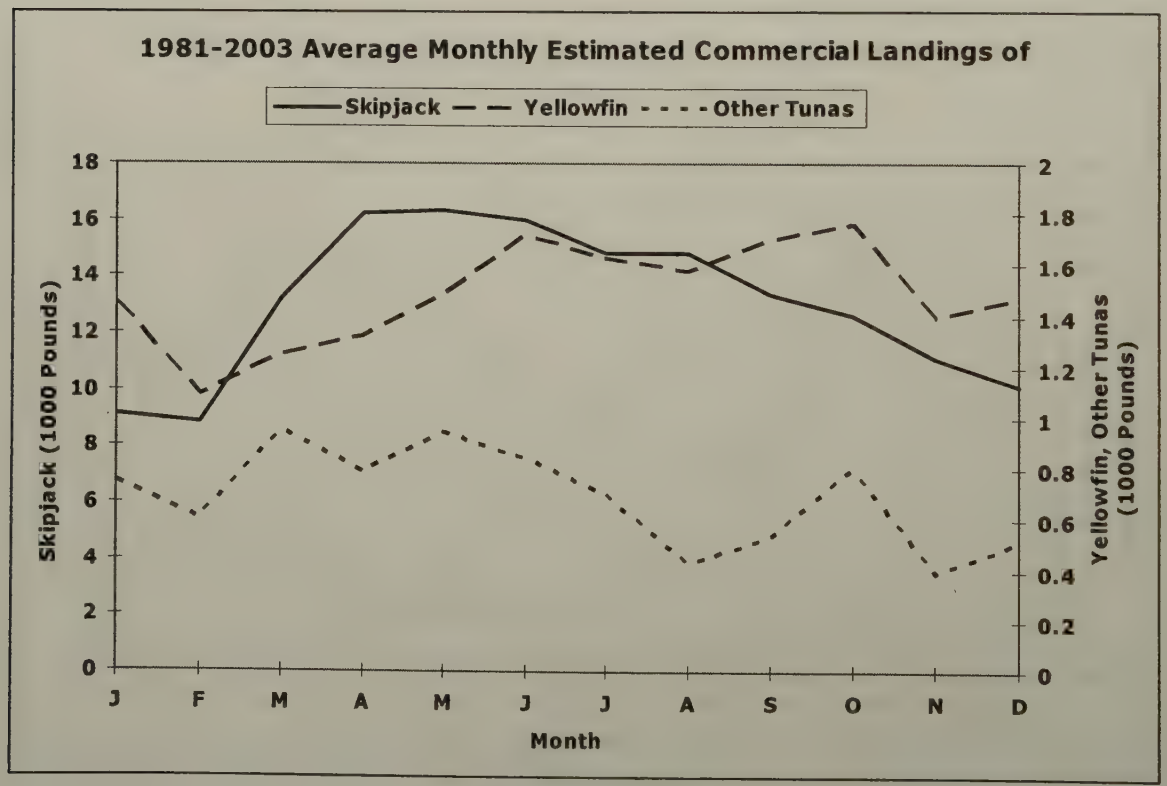


Figure B-2-3

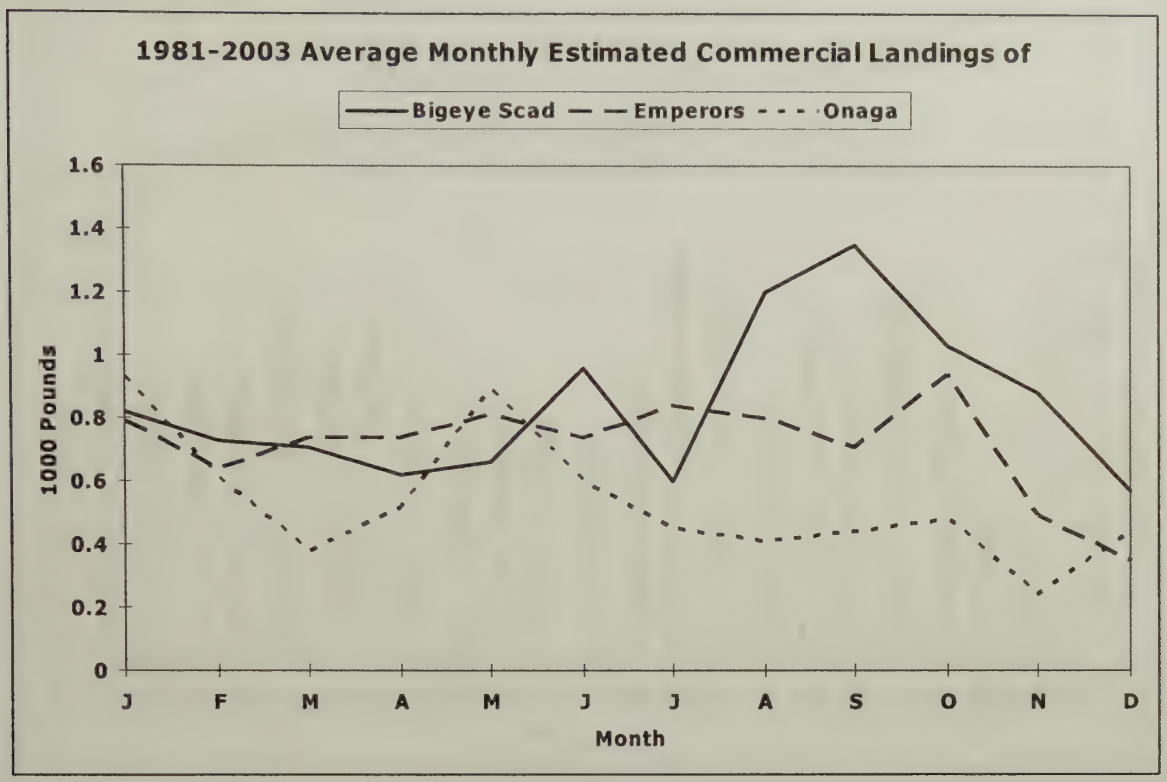


Figure B-2-4

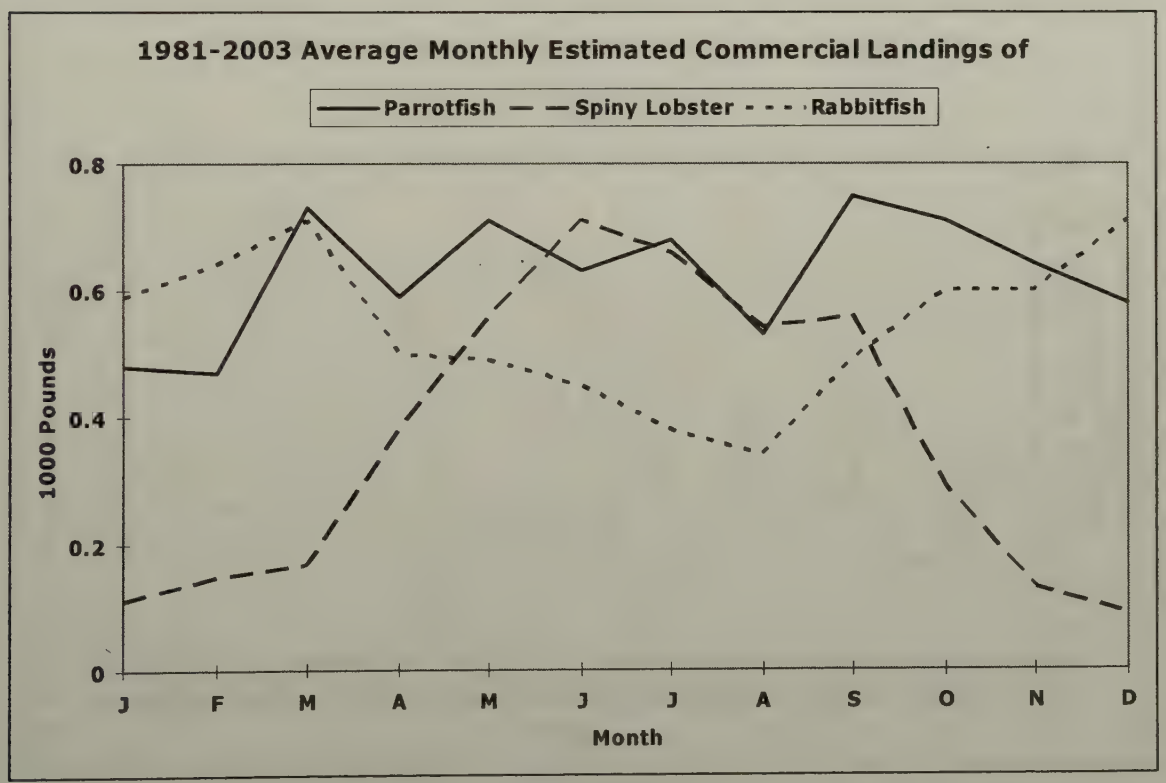


Figure B-2-5

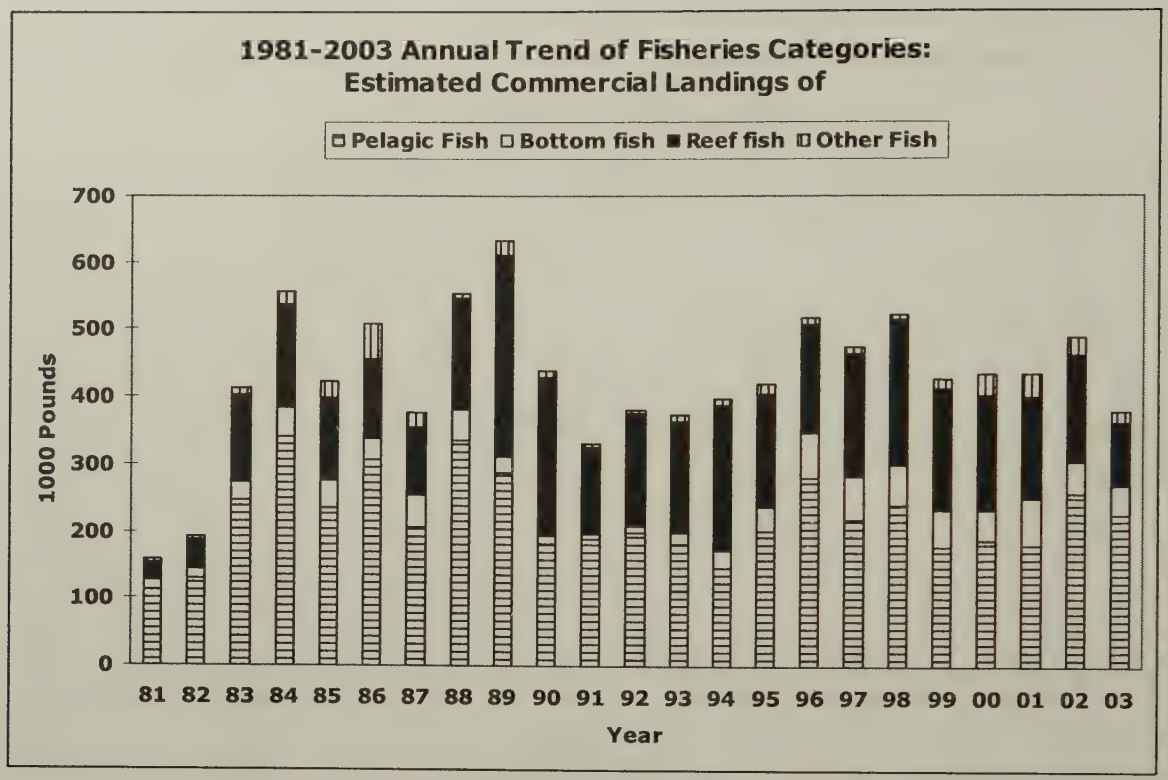


Figure B-3-1

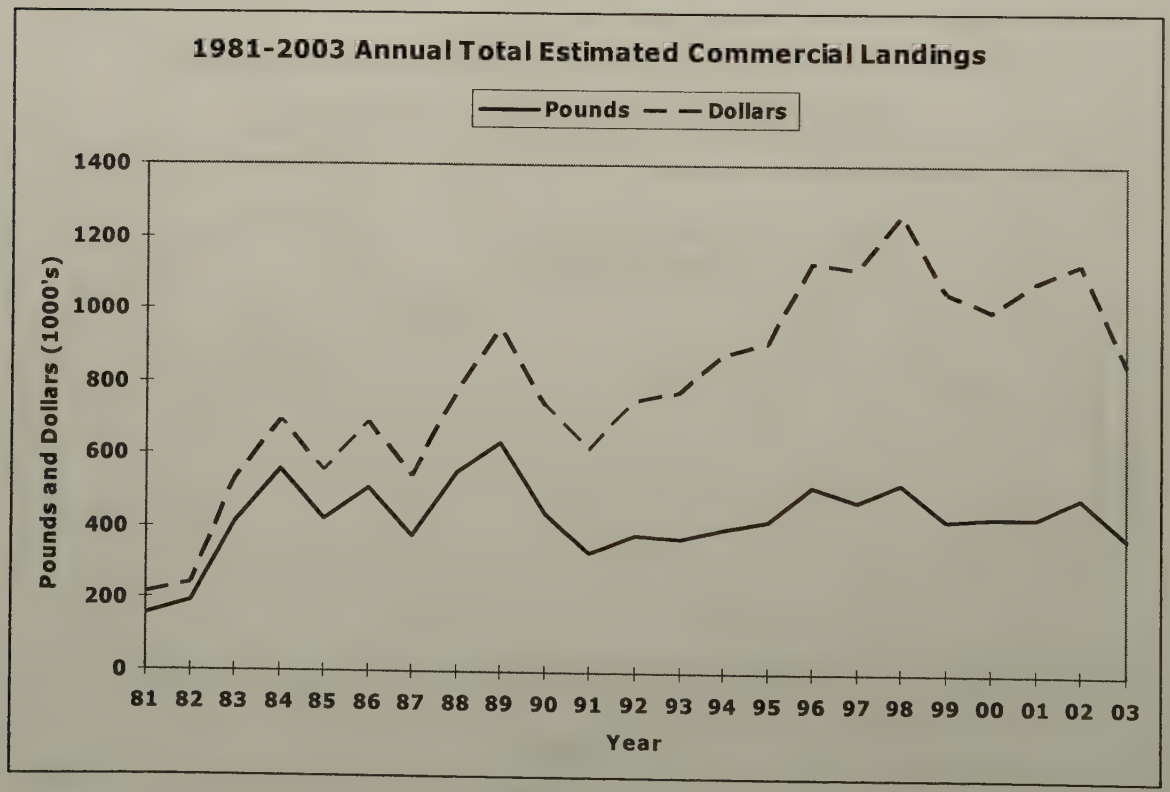


Figure B-3-2

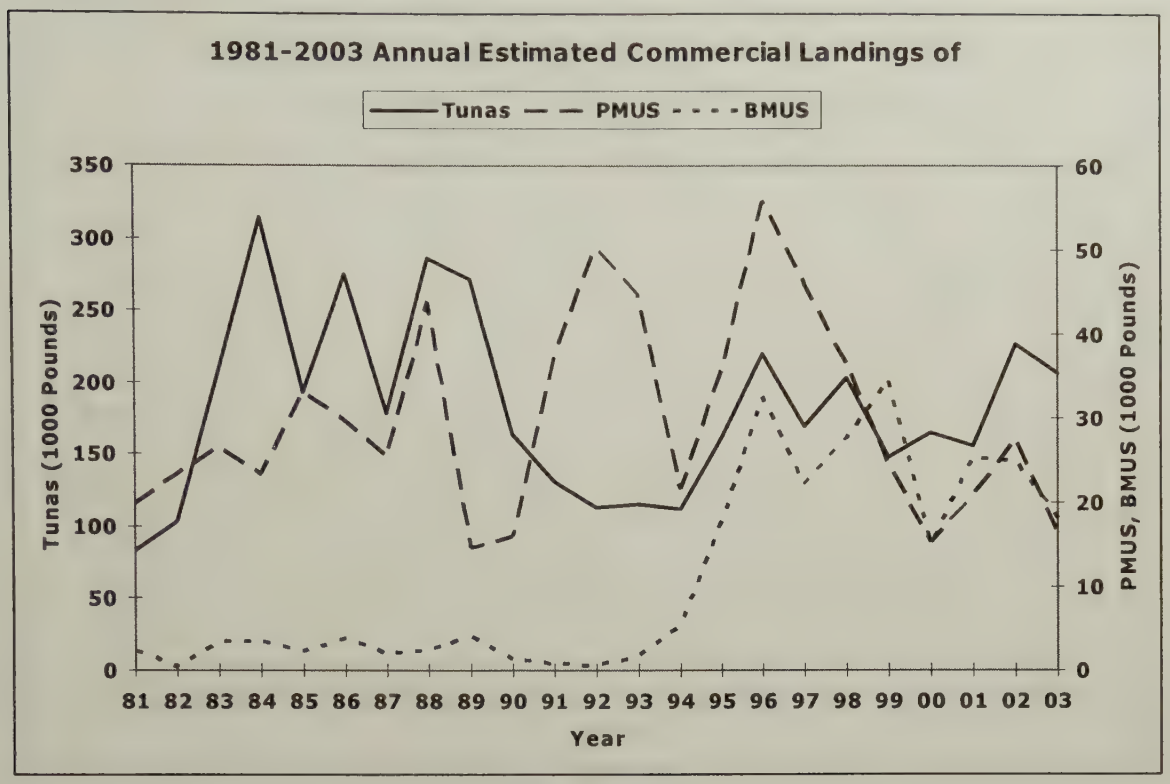


Figure B-3-3

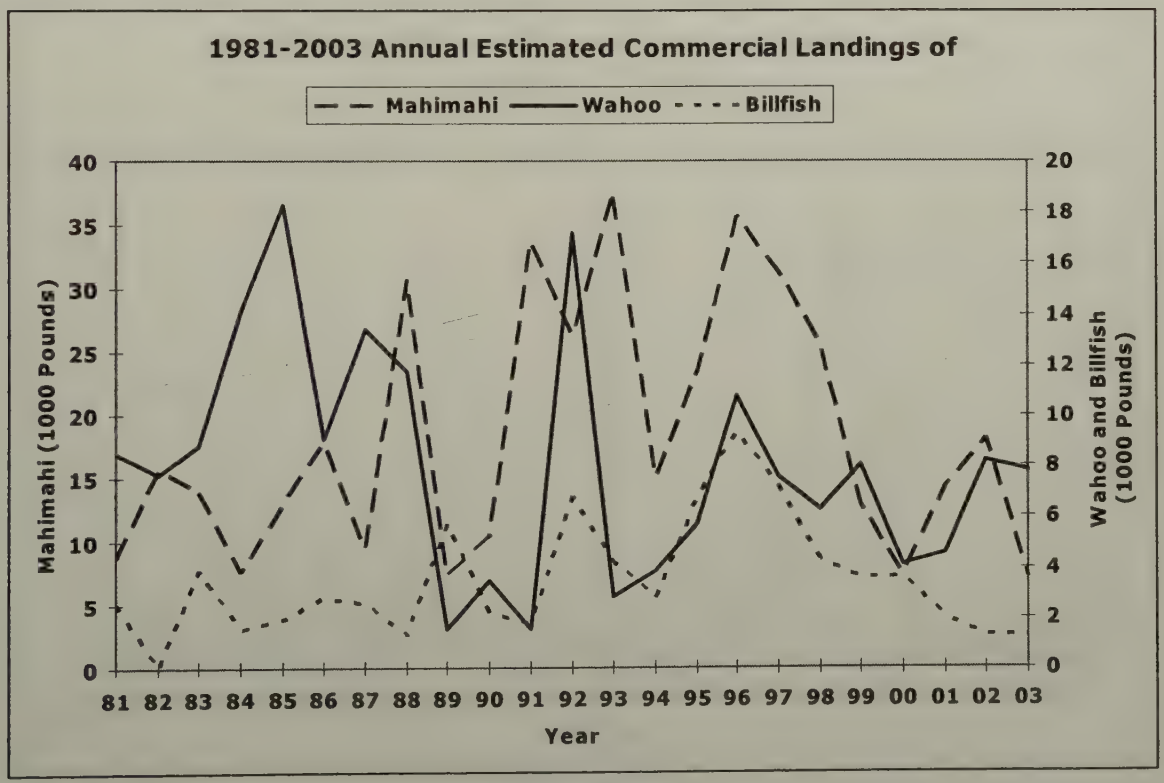


Figure B-3-4

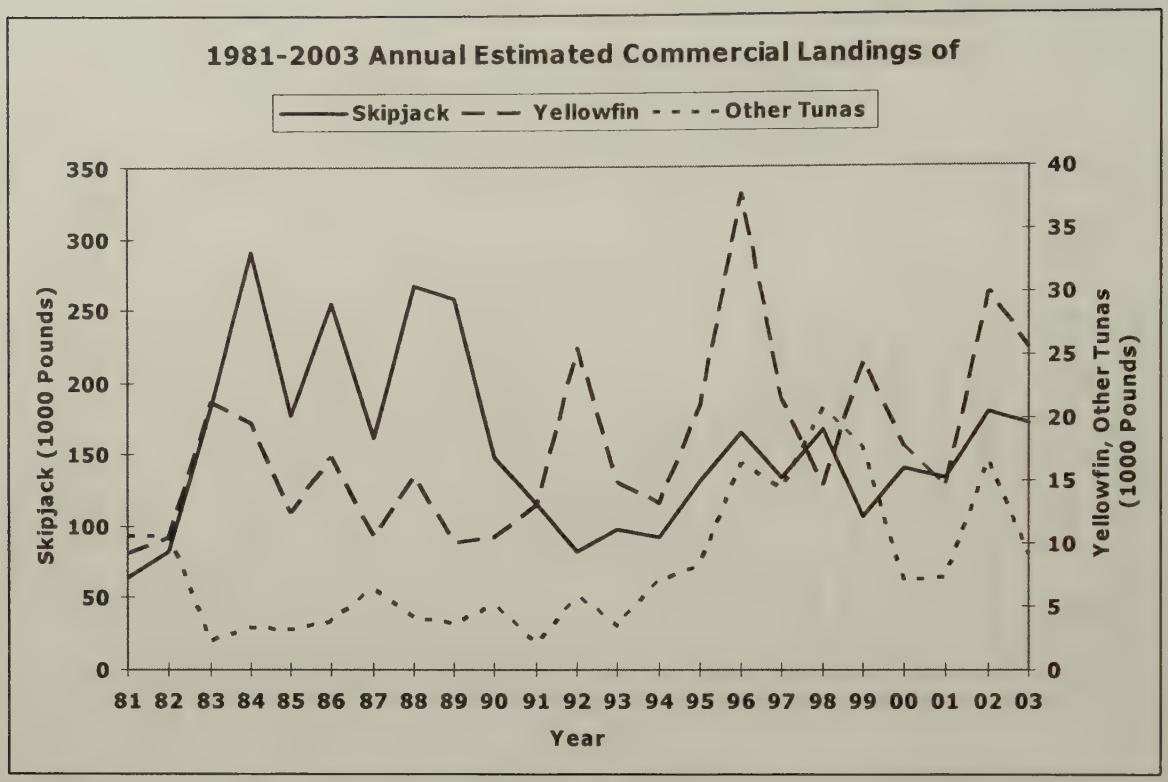


Figure B-3-5

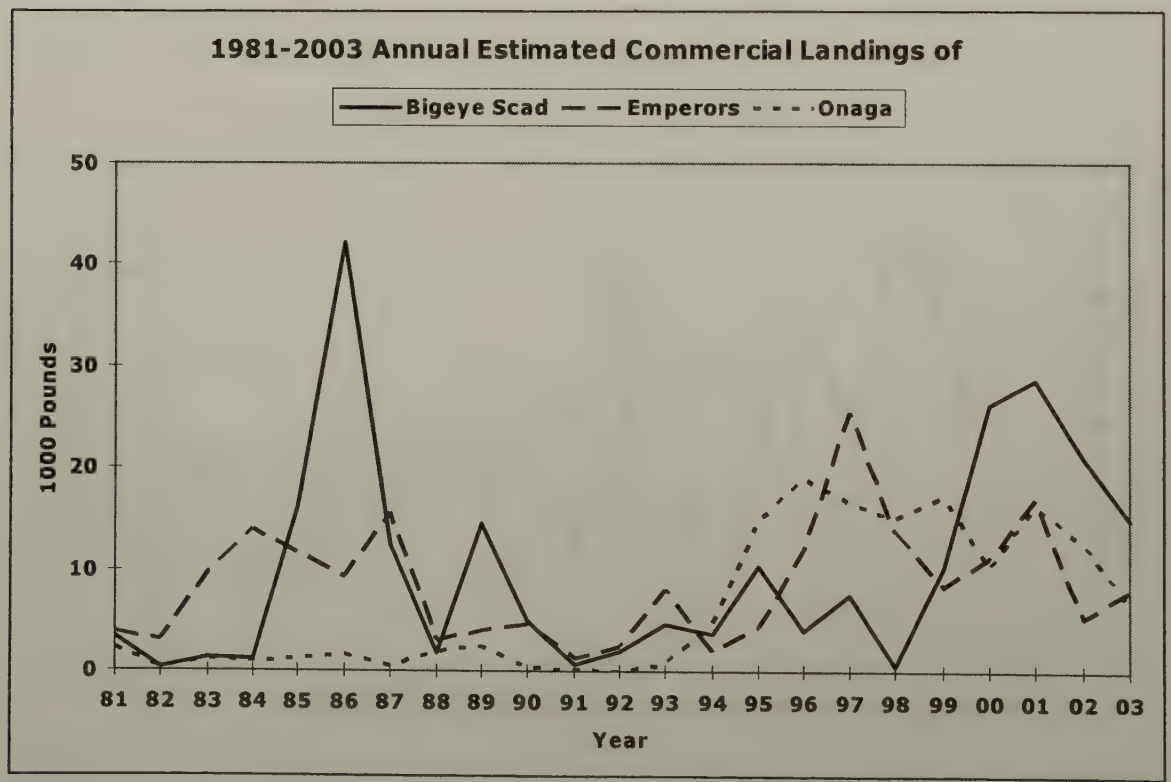


Figure B-3-6

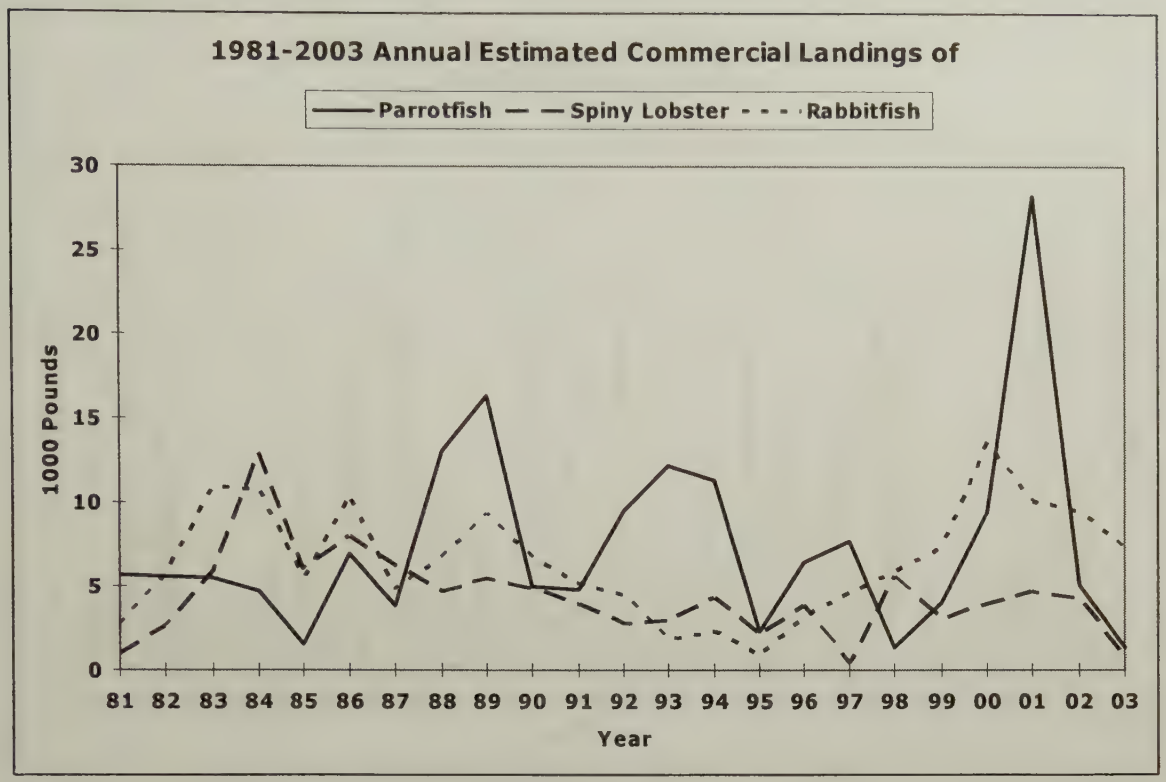


Figure B-3-7

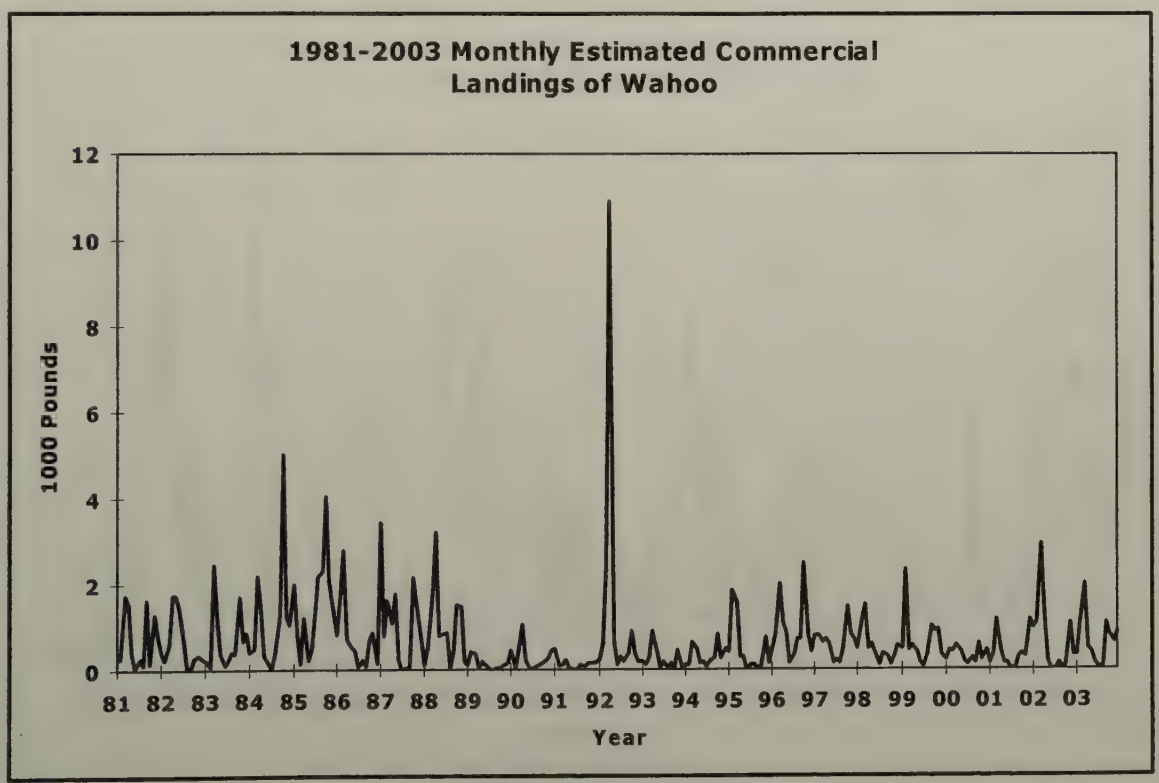


Figure B-4-1

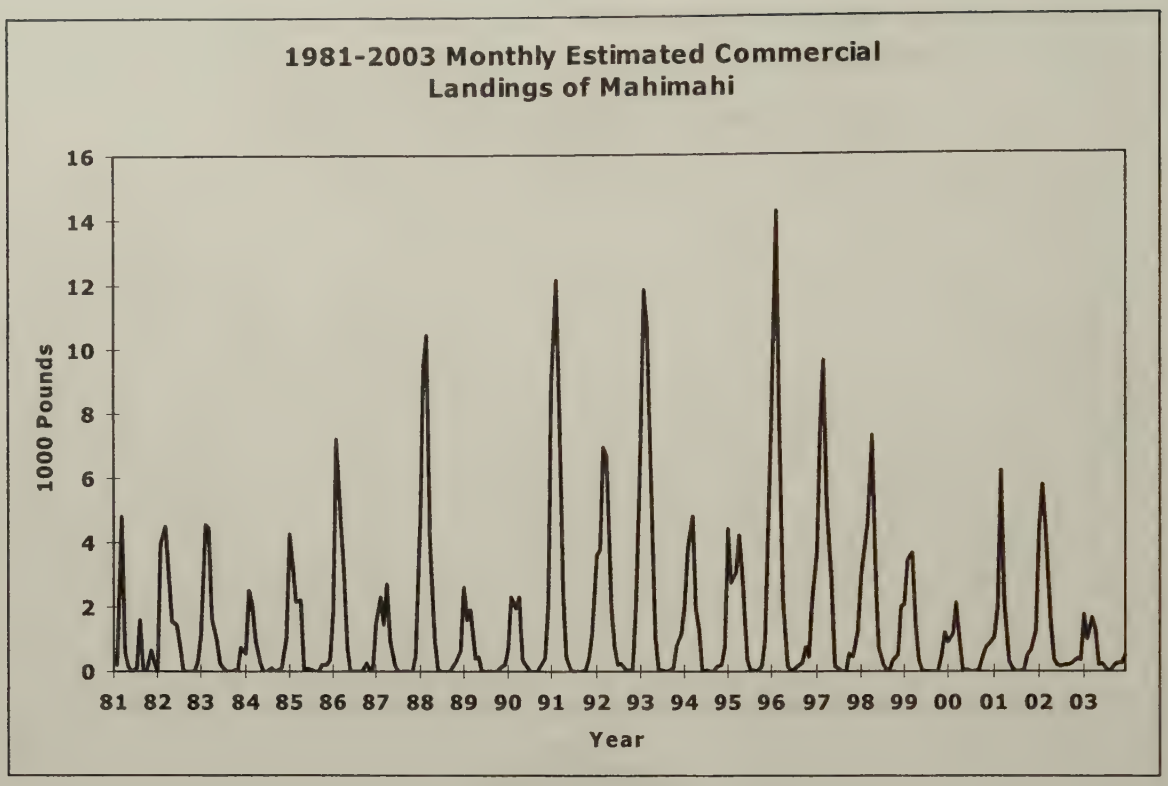


Figure B-4-2

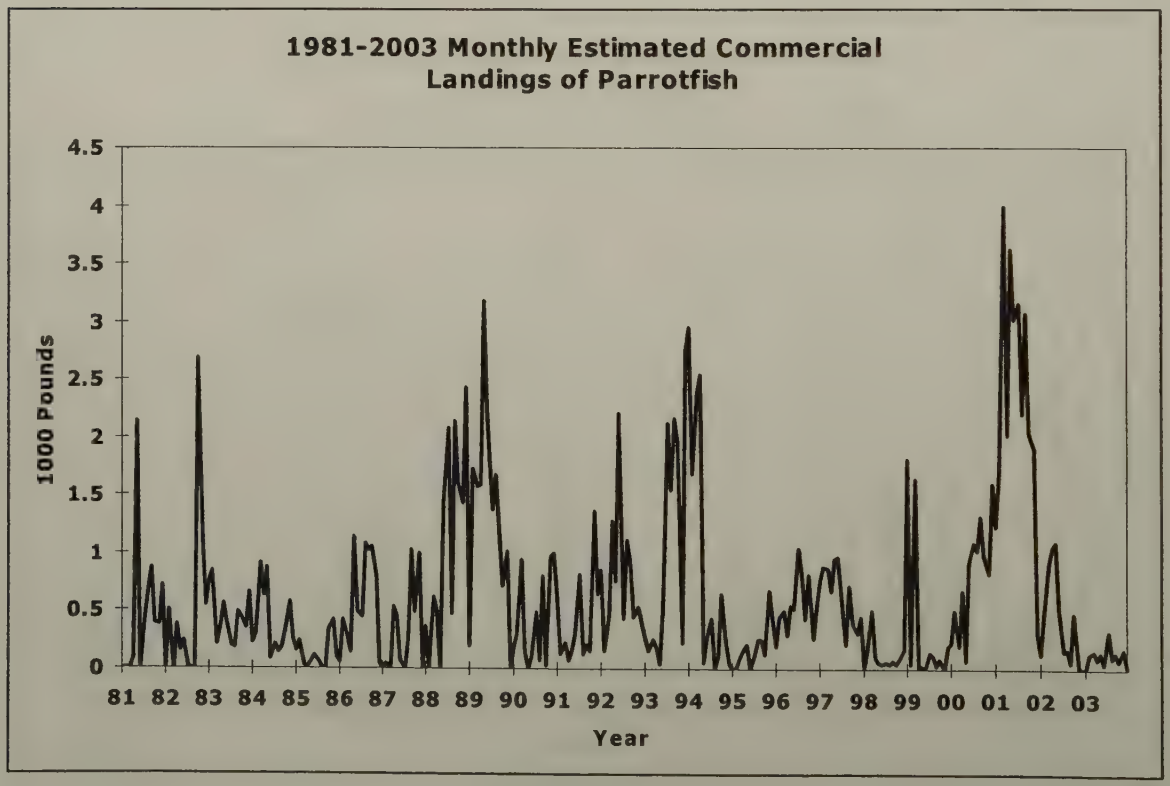


Figure B-4-3

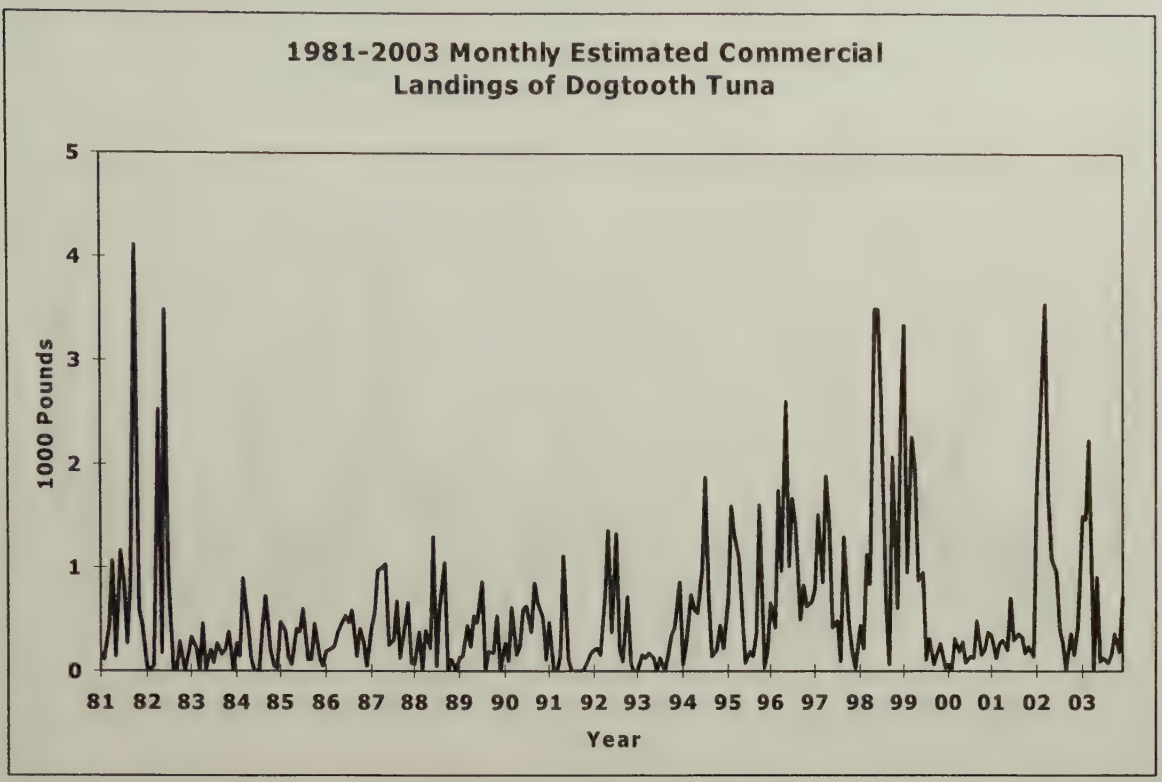


Figure B-4-4

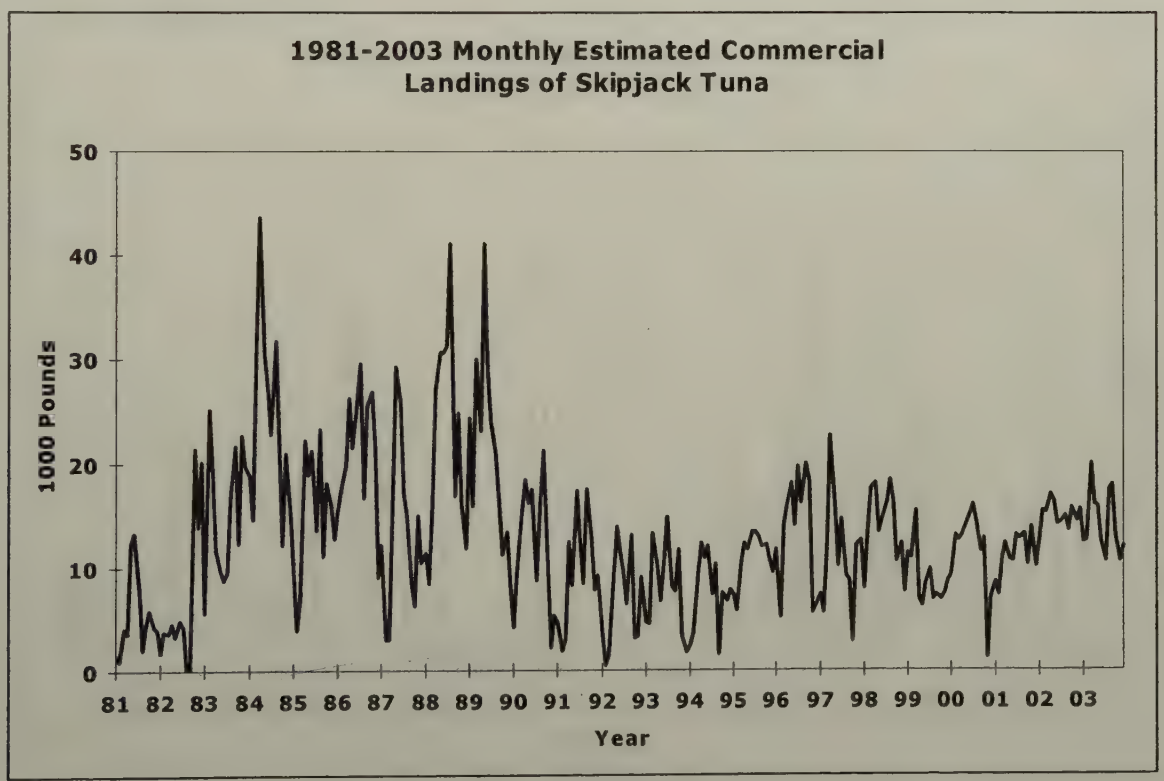


Figure B-4-5

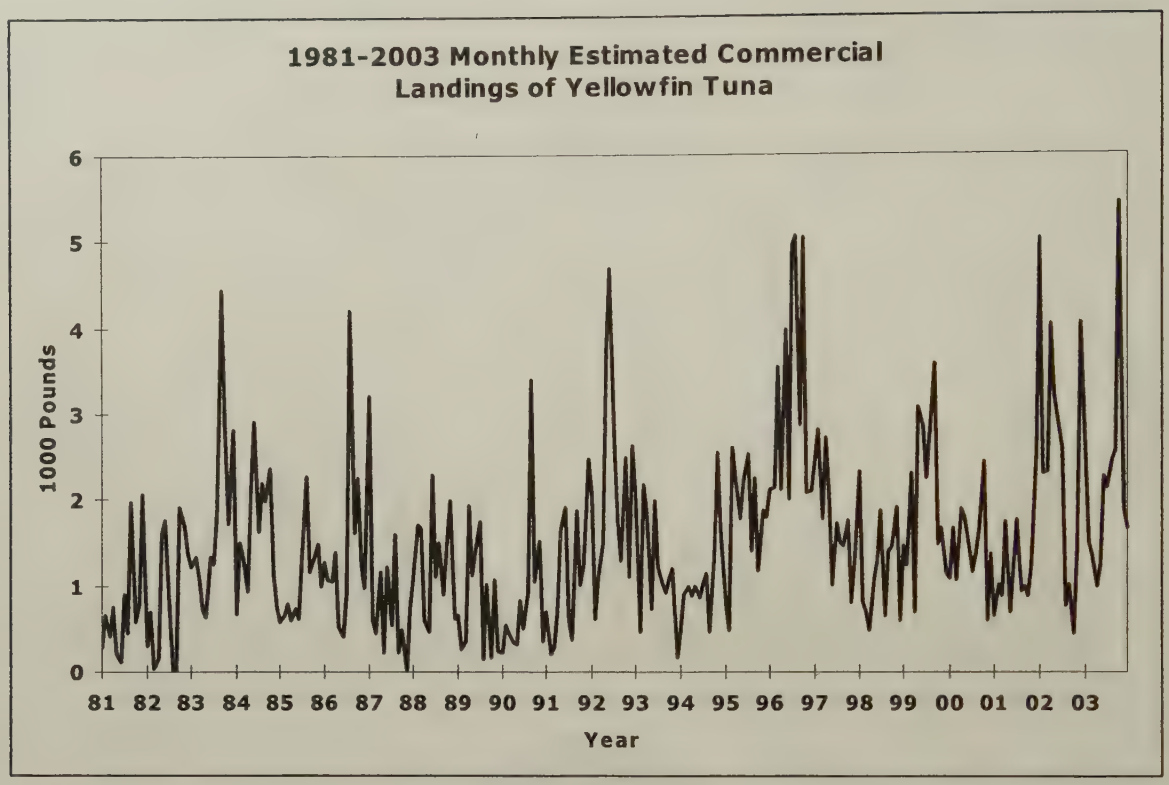


Figure B-4-6

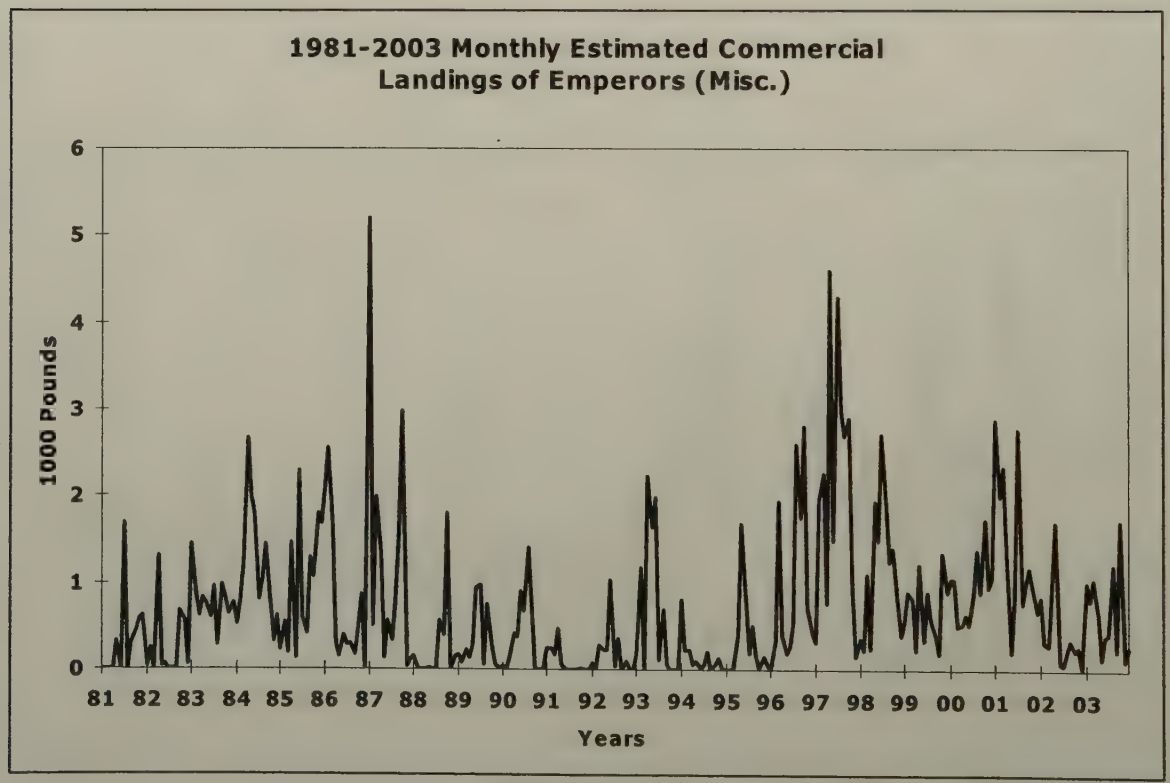


Figure B-4-7

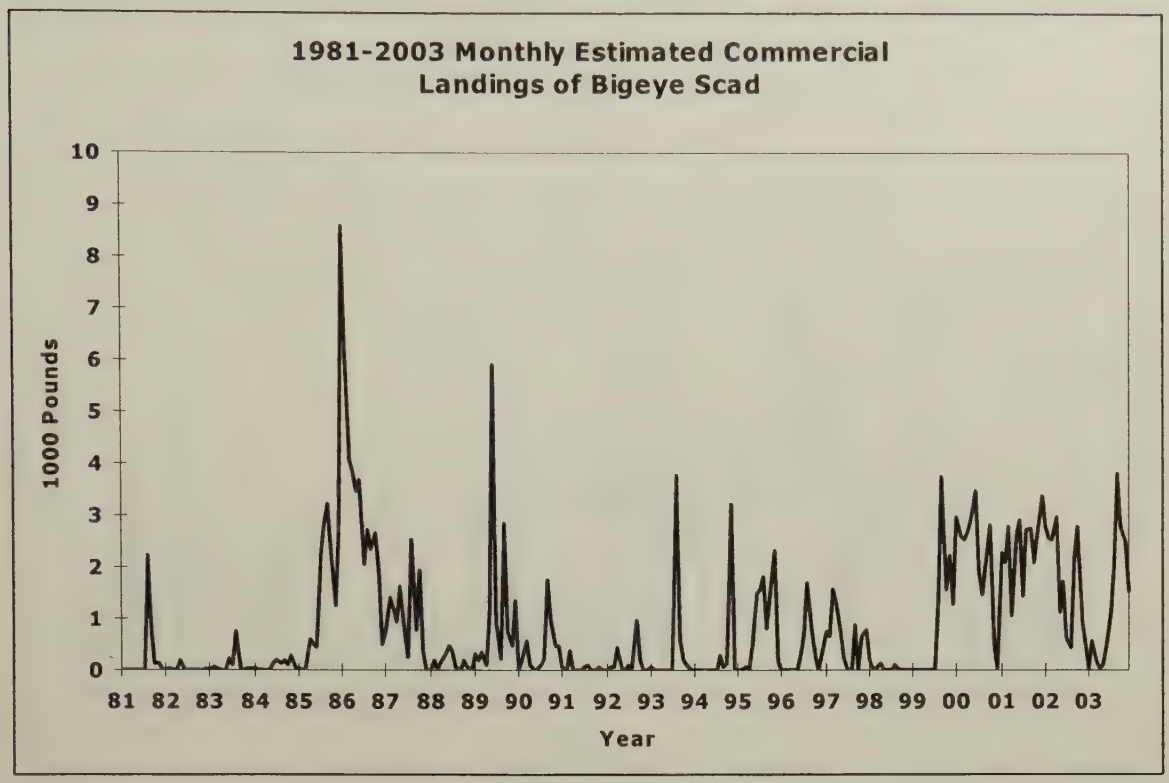


Figure B-4-8

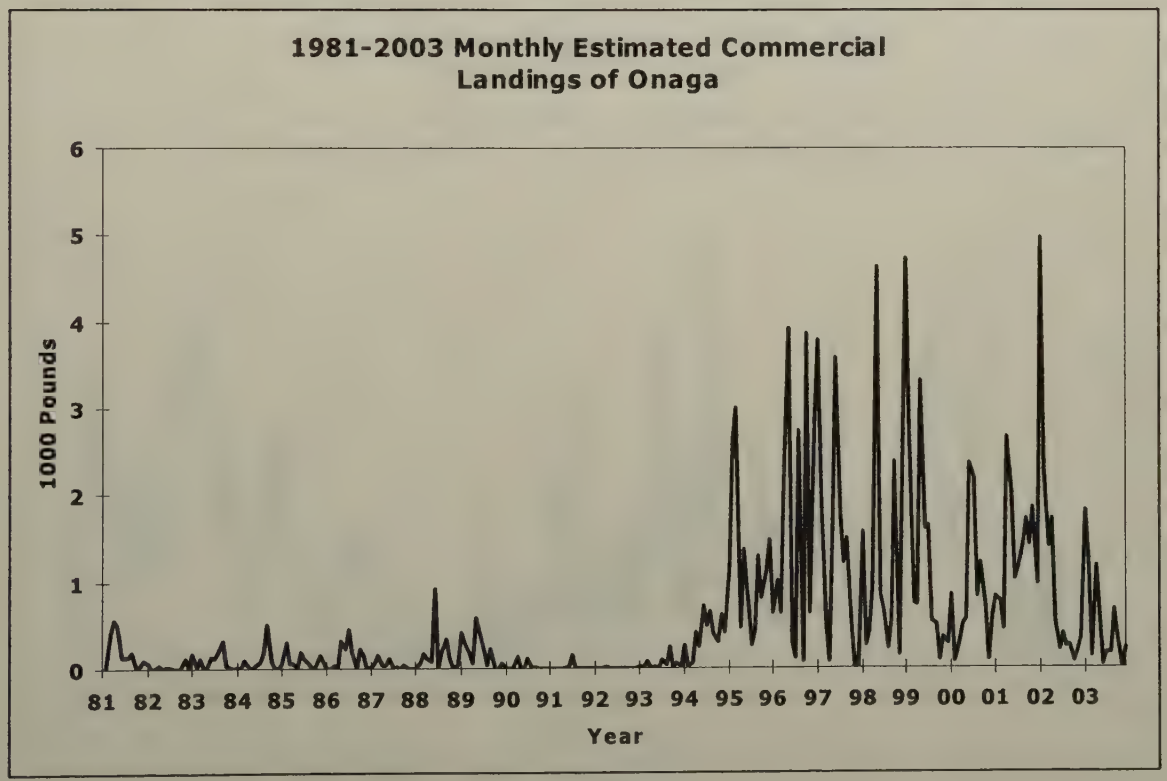


Figure B-4-9

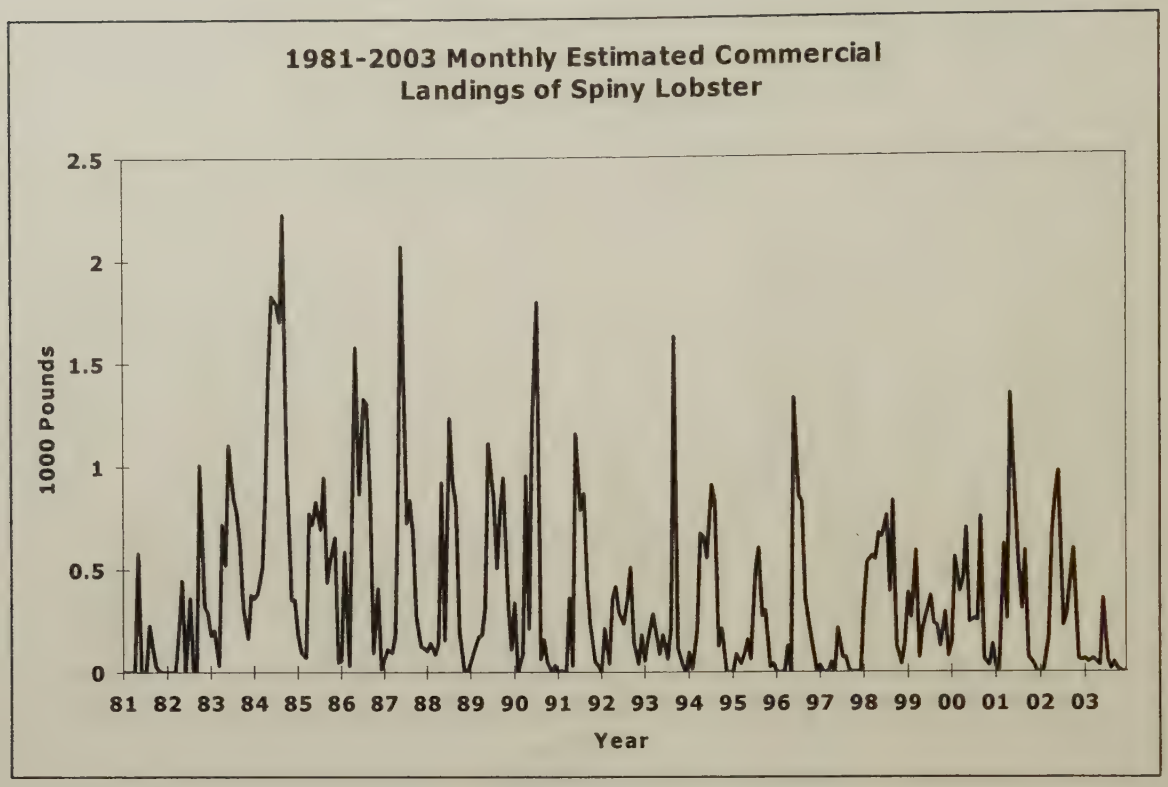


Figure B-4-10

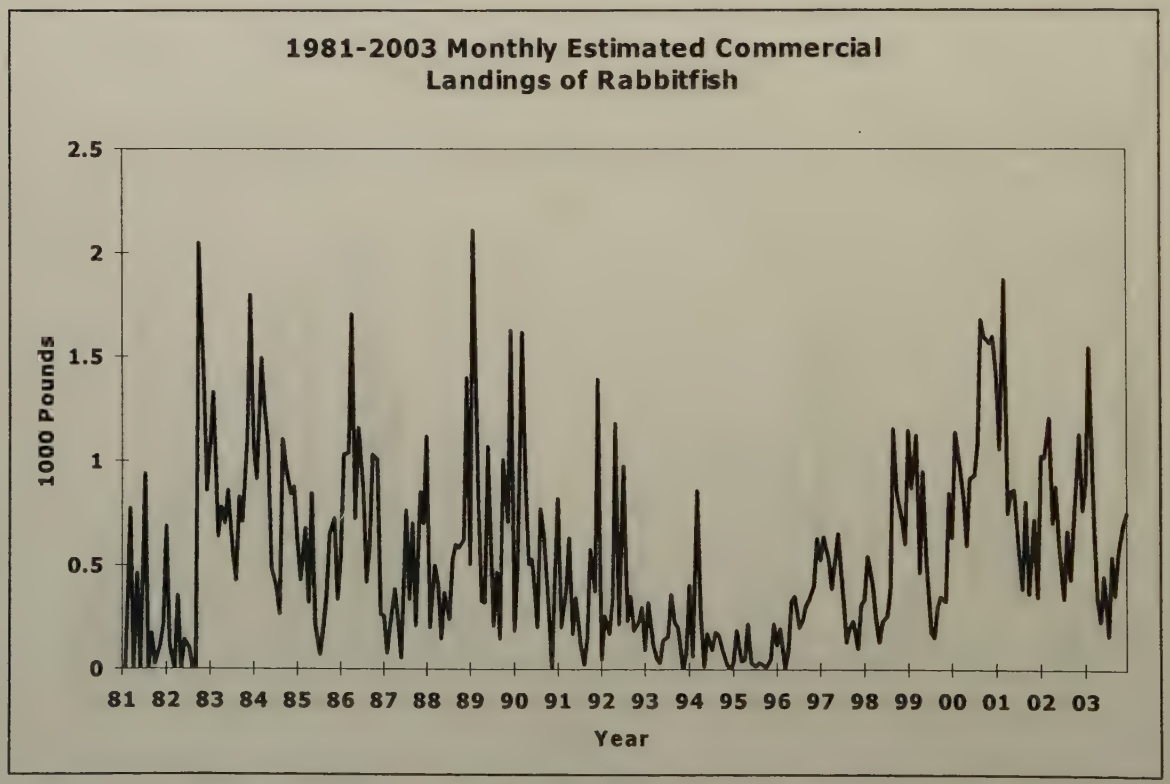


Figure B-4-11

GUAM 2003 FISHERY STATISTICS

Compiled by

Guam Division of Aquatic and Wildlife Resources

and the

Western Pacific Fishery Information Network

May 2005

CONTENTS

	Page
Introduction	C.1
Commercial Landings Data Collection System	C.2
Commercial Landings Data Processing System	C.2
Commercial Landings Data Reporting System	C.3
Interpretation of Statistics	C.5
Tables	C.6
Figures	C.20

LIST OF GUAM SUMMARY TABLES

Table	Title	Page
C-1	2003 Estimated Commercial Landings	C.6
C-2	January 2003 Estimated Commercial Landings	C.8
C-3	February 2003 Estimated Commercial Landings	C.9
C-4	March 2003 Estimated Commercial Landings	C.10
C-5	April 2003 Estimated Commercial Landings	C.11
C-6	May 2003 Estimated Commercial Landings	C.12
C-7	June 2003 Estimated Commercial Landings	C.13
C-8	July 2003 Estimated Commercial Landings	C.14
C-9	August 2003 Estimated Commercial Landings	C.15
C-10	September 2003 Estimated Commercial Landings	C.16
C-11	October 2003 Estimated Commercial Landings	C.17
C-12	November 2003 Estimated Commercial Landings	C.18
C-13	December 2003 Estimated Commercial Landings	C.19

LIST OF GUAM FIGURES

Figure	Title	Page
C-1-1	2003 Fisheries Categories: Monthly Estimated Commercial Landings of Pelagic, Bottom, Reef, and Other Fish	C.20
C-1-2	2003 Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	C.20
C-1-3	2003 Monthly Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	C.21
C-1-4	2003 Monthly Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	C.21
C-1-5	2003 Monthly Estimated Commercial Landings of Onaga and Bigeye Scad	C.22
C-2-1	1980-2003 Average Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	C.22
C-2-2	1980-2003 Average Monthly Estimated Commercial Landings of Wahoo, Mahimahi, and Marlin	C.23
C-2-3	1980-2003 Average Monthly Estimated Commercial Landings of Onaga and Bigeye Scad	C.23
C-2-4	1980-2003 Average Monthly Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	C.24
C-2-5	1980-2003 Average Monthly Estimated Commercial Landings of Miscellaneous Reef Fish and Bottomfish	C.24
C-3-1	1980-2003 Annual Trend of Fisheries Categories: Estimated Commercial Landings of Pelagic, Bottom, Reef, and Other Fish	C.25
C-3-2	1980-2003 Annual Total Estimated Commercial Landings (Pounds and Dollars)	C.25
C-3-3	1980-2003 Annual Estimated Commercial Landings of Tunas, PMUS, and BMUS	C.26
C-3-4	1980-2003 Annual Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	C.26
C-3-5	1980-2003 Annual Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	C.27
C-3-6	1980-2003 Annual Estimated Commercial Landings of Onaga and Bigeye Scad	C.27
C-3-7	1980-2003 Annual Estimated Commercial Landings of Miscellaneous Reef Fish and Bottomfish	C.28
C-4-1	1980-2003 Monthly Estimated Commercial Landings of Wahoo	C.28
C-4-2	1980-2003 Monthly Estimated Commercial Landings of Mahimahi	C.29
C-4-3	1980-2003 Monthly Estimated Commercial Landings of Marlin	C.29

LIST OF GUAM FIGURES (cont.)

Figure	Title	Page
C-4-4	1980-2003 Monthly Estimated Commercial Landings of Skipjack Tuna	C.30
C-4-5	1980-2003 Monthly Estimated Commercial Landings of Yellowfin Tuna	C.30
C-4-6	1980-2003 Monthly Estimated Commercial Landings of Onaga	C.31
C-4-7	1980-2003 Monthly Estimated Commercial Landings of Bigeye Scad	C.31
C-4-8	1980-2003 Monthly Estimated Commercial Landings of Dogtooth Tuna	C.32
C-4-9	1980-2003 Monthly Estimated Commercial Landings of Reef Fish	C.32
C-4-10	1980-2003 Monthly Estimated Commercial Landings of Bottomfish	C.33

GUAM 2003 FISHERY STATISTICS

INTRODUCTION

The Territory of Guam is the southernmost, largest, and most populous island in the Mariana Archipelago.

Location: 13.4°N latitude, 144.4°E longitude
Population: 166,000 (*The World Factbook*, 2004)

Economy: U.S. military, tourism, and fish and handicrafts exports

Guam
source: http://www.cia.gov/cia/publications/factbook/geos/gq.html
The World Factbook

Fishing activities on Guam are divided into two basic categories: offshore and inshore fishing. Offshore fishing typically involves small boats (12 to 48 feet) going on 1- to 2-day trolling and bottomfishing trips. They usually originate from one of the three principal harbors located on the west coast and southern tip of the island. Inshore fishing is usually conducted without the use of a boat and consists mostly of nearshore casting, netting, and spearfishing. From the late 1980s to about 1996, the sportfishing charter boat industry grew significantly due to a strong Asian economy. Since 1996, declines in that economy have resulted in a downturn. However, charter boats still contribute considerably to the commercial landings on Guam since much of their catch is sold.

In recent years, the consumption of reef-associated fish has increased on Guam. This demand, however, appears to be stressing bottomfish and reef fish stocks around Guam. These stocks are not caught just by bottomfishing, but also by other methods such as gillnetting and SCUBA spearfishing.

In 1982, WPacFIN began working with staff of the Division of Aquatic and Wildlife Resources (DAWR) and with local fish dealers to obtain information on commercial landings through voluntary use of "trip ticket" invoices provided by WPacFIN. The tables and graphs in this section are based on data that are summarized from receipts submitted by all participating dealers on Guam and then adjusted to create the estimated total commercial landings based on an estimated annual percent coverage factor.

COMMERCIAL LANDINGS DATA COLLECTION SYSTEM

There are three sources of fish in Guam's commercial market: 1) full-time commercial fishermen; 2) part-time commercial fishermen; and 3) subsistence or recreational "expense" fishermen who frequently sell portions of their catch to help defray costs. Licenses are not required to sell fish in Guam, nor are there any reporting requirements for those selling fish.

In July 1979 the Guam Fishermen's Coop was established in Agana through government funding. It subsequently became the central distribution center for fresh local fish. Prior to 1979 there was no central place to sell fish, and fishermen had to develop their own markets and peddle fish after each trip.

In 1982, WPacFIN began working with the Coop to improve their invoicing system and to obtain data on all fish purchases. A cooperative system was established whereby the Coop would use forms and coding schemes designed by WPacFIN and would supply copies of all invoices to WPacFIN for computer data entry. In return, WPacFIN would provide the Coop with document quality control and computer-generated summary statistics. All purchase data back to July 1979 were also coded and computerized. As time progressed, other fish markets began to operate, and DAWR and WPacFIN staff worked with them to obtain data through the voluntary receipt book program.

Although a proposed law has been introduced several times that would require reporting by dealers and possibly commercial fishermen, it has never made it very far through the legislative process, and the commercial landings data collection system remains voluntary.

Data collected on commercial receipts forms include

- Date
- Number of fishermen
- Area fished
- Number of pieces caught
- Price per pound
- Fisherman code
- Hours fished
- Species caught
- Pounds caught

COMMERCIAL LANDINGS DATA PROCESSING SYSTEM

In earlier years data were processed at the central WPacFIN office in Honolulu. But beginning in 1994 DAWR staff took over this task using a computer and software provided by WPacFIN. The processing system for the commercial landings data collected from the fish dealers is fairly straightforward. Dealers complete a purchase form every time they purchase fish from a fisherman. On this form, catches are divided into categories for

weighing by species or species group (where practicable, number of pieces is also recorded). Once all the edits, adjustments, verifications, and corrections are made, summary reports are generated. Numerous standard reports are available, but only the monthly and annual landings by species are provided in this document.

COMMERCIAL LANDINGS DATA REPORTING SYSTEM

After completing all editing, adjusting, and quality control activities for the commercial landings data, monthly and annual summary reports by species are generated. Each table contains information on the pounds, value, and the average price per pound for each species or species group. Each monthly report contains a subtotal for the sum of all species combined for that month. Annual reports contain the estimated total landings for each species and the estimated total recorded landings for all species for the calendar year. Included with the estimated commercial landings summary reports are graphs of some of the important statistics.

Please note that commercial landings data have been adjusted to reflect total coverage and are referenced as "Estimated Commercial Landings" in the charts and tables. Also, some of the charts in this volume are new or modified from earlier volumes.

To access the most up-to-date data and charts, please visit the WPacFIN Website at <http://www.pifsc.noaa.gov/wpacfin>.

The following groupings of species, species categories, and abbreviations are used in the tables and graphs for Guam's commercial landings:

Note: Many of the species included in this report have been recategorized over the years. For example, the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the Pelagic Management Unit Species (PMUS) category. However, this FSWP volume will maintain the original species categorizations from previous volumes for comparative purposes. As such, tunas are kept in a separate category.

I. Pelagic Management Unit Species (PMUS)

Mahimahi (dolphin)
Marlin (probably all blue but possibly striped or black)
Spearfish
Sailfish
Wahoo
Sharks

II. Bottomfish Management Unit Species (BMUS)

Jacks (unclassified but excluding bigeye scad)
Amberjack
Bottomfish (unclassified)
Ehu (red snapper)
Gindai (flower snapper)
Grouper
Kalekale (pink snapper)
Lehi (silverjaw snapper)
Onaga (red or longtail snapper)
Opakapaka (pink snapper)
Uku (gray snapper)
Emperor (mafute)

III. Billfish

Marlin (probably all blue but possibly striped or black)
Spearfish
Sailfish

IV. Tunas

Tunas (unclassified)
Skipjack Tuna
Yellowfin Tuna
Dogtooth or White Tuna
Kawakawa

V. Other Tuna

All the above tunas excluding skipjack and yellowfin tunas.

VI. Fisheries Categories

A. Pelagic Species

All PMUS and tuna species plus the following:

Troll Fish (unclassified)
Barracuda
Rainbow Runner

B. Bottomfish

Same as the BMUS

C. Reef Fish

Reef Fish (unclassified)	Parrotfish
Giant Wrasse	Snapper
Rabbitfish	Surgeonfish
Rudderfish	Unicornfish
Squirrelfish	Goatfish

D. Other

Miscellaneous (unclassified)	Coconut Crab
Bigeye Scad	Lobster
Mullet	Shrimp
Eels	Octopus
Milkfish	Squid
Invertebrates (unclassified)	Seaweeds
Crabs (unclassified)	Imported

INTERPRETATION OF STATISTICS

The user is reminded again to pay heed to the precautions and assumptions identified earlier in this document when making interpretations of or inferences from data reported in the tables and graphs. Remember also that the commercial landings summaries are adjusted numbers based on samples of fishing activities.

Table C-1
2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Unknown	135	$418	$3.09
Assorted	16	$40	$2.50
Miscellaneous	496	$1,134	$2.28
Bigeye Scad (Atulai)	1,532	$2,739	$1.79
Black Jack	78	$198	$2.53
Jacks	2,820	$7,390	$2.62
Sharks	6	$15	$2.50
Bottom Fish	889	$2,640	$2.97
Ehu (Red Snapper)	393	$1,502	$3.83
Gindai (Flower Snap)	222	$885	$3.99
Grouper	1,444	$4,009	$2.78
Kalikali (Pink Snap)	179	$600	$3.35
Lehi (Silverjaw)	222	$852	$3.83
Onaga (Red Snapper)	1,428	$7,061	$4.95
Opakapaka (Pink Snp)	270	$1,069	$3.96
Uku (Gray Snapper)	190	$501	$2.64
Amberjack	204	$527	$2.58
Reef Fish	51,397	$151,081	$2.94
Wrasse	549	$1,430	$2.61
Rabbitfish	658	$1,944	$2.95
Rudderfish (Guilli)	107	$321	$3.00
Mafute (Emperor)	3,195	$8,805	$2.76
Parrotfish	305	$893	$2.93
Snapper	187	$466	$2.50
Surgeonfish	1,374	$3,660	$2.66
Unicornfish	13,688	$34,676	$2.53
Goatfish	354	$1,007	$2.84
Troll Fish	109	$146	$1.34
Barracuda	3,100	$6,073	$1.96
Mahi / Dolphinfish	55,145	$89,846	$1.63
Marlin	44,151	$48,731	$1.10
Spearfish	185	$196	$1.06
Sailfish	1,806	$2,321	$1.29
Rainbow Runner	5,883	$10,010	$1.70
Monchong	251	$628	$2.50
Wahoo	36,582	$72,371	$1.98
Tunas	4	$8	$2.00
Bonita/skipjack Tuna	83,171	$87,721	$1.05
Dogtooth Tuna	2,289	$2,880	$1.26
Yellowfin Tuna	37,868	$75,386	$1.99
Kawakawa	86	$102	$1.19
Invertebrates	4	$12	$3.00
Crabs (Misc)	18	$44	$2.50

Table C-1
2003 Estimated Commercial Landings (cont.)

Species	Pounds	Value	Price/Lb.
Lobster	2,225	$7,279	$3.27
Octopus	3,748	$9,341	$2.49
Seaweeds	114	$0	$0.00
TOTAL	359,078	$648,957	$1.81

Table C-2
January 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Black Jack	8	$23	$2.75
Jacks	107	$284	$2.65
Ehu (Red Snapper)	12	$47	$4.00
Gindai (Flower Snap)	27	$108	$4.00
Grouper	65	$196	$3.00
Kalikali (Pink Snap)	8	$25	$3.00
Lehi (Silverjaw)	12	$49	$4.00
Onaga (Red Snapper)	46	$229	$5.00
Uku (Gray Snapper)	10	$28	$2.75
Amberjack	12	$37	$3.00
Reef Fish	3,782	$11,251	$2.97
Rabbitfish	101	$304	$3.00
Rudderfish (Guilli)	107	$321	$3.00
Mafute (Emperor)	109	$316	$2.89
Snapper	31	$78	$2.50
Troll Fish	12	$24	$2.00
Barracuda	138	$275	$2.00
Mahi / Dolphinfish	7,801	$13,243	$1.70
Marlin	174	$250	$1.44
Spearfish	42	$52	$1.25
Sailfish	62	$77	$1.25
Rainbow Runner	1,262	$2,279	$1.81
Wahoo	3,490	$7,101	$2.03
Bonita/skipjack Tuna	3,448	$4,430	$1.28
Dogtooth Tuna	121	$179	$1.48
Yellowfin Tuna	4,777	$9,762	$2.04
Lobster	574	$1,172	$2.04
Octopus	267	$690	$2.58
TOTAL	26,606	$52,830	$1.99

Table C-3
February 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Unknown	123	$368	$3.00
Bigeye Scad (Atulai)	5	$14	$3.00
Black Jack	16	$41	$2.50
Jacks	13	$32	$2.50
Bottom Fish	106	$318	$3.00
Gindai (Flower Snap)	18	$71	$4.00
Grouper	23	$69	$3.00
Lehi (Silverjaw)	14	$54	$4.00
Onaga (Red Snapper)	80	$400	$5.00
Opakapaka (Pink Snp)	5	$21	$4.00
Uku (Gray Snapper)	58	$152	$2.64
Reef Fish	4,138	$12,392	$2.99
Mafute (Emperor)	112	$330	$2.93
Barracuda	486	$909	$1.87
Mahi / Dolphinfish	15,071	$23,683	$1.57
Marlin	205	$283	$1.38
Spearfish	11	$11	$1.00
Sailfish	249	$433	$1.74
Rainbow Runner	437	$777	$1.78
Monchong	114	$284	$2.50
Wahoo	4,409	$8,793	$1.99
Bonita/skipjack Tuna	2,503	$3,262	$1.30
Dogtooth Tuna	161	$201	$1.25
Yellowfin Tuna	1,976	$4,073	$2.06
Lobster	58	$216	$3.75
Octopus	248	$690	$2.78
Seaweeds	114	$0	$0.00
TOTAL	30,749	$57,877	$1.88

Table C-4
March 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Unknown	12	$49	$4.00
Assorted	16	$40	$2.50
Jacks	299	$810	$2.71
Bottom Fish	83	$249	$3.00
Ehu (Red Snapper)	86	$346	$4.00
Gindai (Flower Snap)	2	$9	$4.00
Grouper	75	$224	$3.00
Kalikali (Pink Snap)	23	$93	$4.00
Lehi (Silverjaw)	49	$195	$4.00
Onaga (Red Snapper)	205	$1,012	$4.94
Opakapaka (Pink Snp)	31	$125	$4.00
Uku (Gray Snapper)	21	$51	$2.50
Amberjack	94	$235	$2.51
Reef Fish	4,318	$12,903	$2.99
Rabbitfish	119	$356	$3.00
Mafute (Emperor)	267	$746	$2.80
Snapper	12	$29	$2.50
Unicornfish	4	$11	$3.00
Barracuda	328	$626	$1.91
Mahi / Dolphinfish	11,562	$19,406	$1.68
Marlin	1,331	$1,668	$1.25
Sailfish	62	$77	$1.25
Rainbow Runner	549	$988	$1.80
Monchong	32	$79	$2.50
Wahoo	7,526	$15,465	$2.05
Bonita/skipjack Tuna	8,010	$10,301	$1.29
Dogtooth Tuna	386	$500	$1.29
Yellowfin Tuna	2,760	$5,340	$1.93
Lobster	133	$498	$3.75
Octopus	41	$113	$2.75
TOTAL	38,435	$72,547	$1.89

Table C-5
April 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Miscellaneous	9	$24	$2.50
Black Jack	45	$112	$2.50
Jacks	228	$612	$2.68
Bottom Fish	39	$118	$3.00
Ehu (Red Snapper)	8	$31	$4.00
Gindai (Flower Snap)	27	$108	$4.00
Grouper	194	$453	$2.34
Kalikali (Pink Snap)	8	$23	$3.00
Lehi (Silverjaw)	8	$33	$4.00
Onaga (Red Snapper)	78	$388	$5.00
Opakapaka (Pink Snp)	2	$9	$4.00
Uku (Gray Snapper)	9	$28	$3.00
Reef Fish	5,535	$16,158	$2.92
Wrasse	14	$39	$2.75
Rabbitfish	25	$76	$3.00
Mafute (Emperor)	135	$389	$2.89
Unicornfish	41	$124	$3.00
Barracuda	366	$732	$2.00
Mahi / Dolphinfish	6,701	$10,758	$1.61
Marlin	4,376	$5,582	$1.28
Spearfish	28	$28	$1.00
Sailfish	196	$255	$1.30
Rainbow Runner	281	$525	$1.87
Wahoo	3,943	$7,840	$1.99
Bonita/skipjack Tuna	9,220	$10,160	$1.10
Dogtooth Tuna	96	$121	$1.25
Yellowfin Tuna	4,755	$9,187	$1.93
Lobster	47	$178	$3.75
Octopus	96	$260	$2.69
TOTAL	36,511	$64,347	$1.76

Table C-6
May 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Jacks	477	$1,297	$2.72
Bottom Fish	32	$127	$4.00
Gindai (Flower Snap)	14	$52	$3.83
Grouper	52	$160	$3.09
Kalikali (Pink Snap)	20	$60	$3.00
Lehi (Silverjaw)	18	$71	$4.00
Onaga (Red Snapper)	41	$206	$5.00
Opakapaka (Pink Snp)	17	$68	$4.00
Uku (Gray Snapper)	11	$29	$2.75
Amberjack	11	$28	$2.50
Reef Fish	5,945	$17,605	$2.96
Wrasse	41	$113	$2.75
Rabbitfish	187	$561	$3.00
Mafute (Emperor)	245	$657	$2.68
Parrotfish	57	$157	$2.75
Surgeonfish	215	$646	$3.00
Unicornfish	26	$78	$3.00
Barracuda	95	$191	$2.00
Mahi / Dolphinfish	1,269	$2,240	$1.76
Marlin	3,788	$4,199	$1.11
Spearfish	34	$34	$1.00
Sailfish	403	$549	$1.36
Rainbow Runner	559	$921	$1.65
Wahoo	942	$1,943	$2.06
Bonita/skipjack Tuna	15,068	$15,068	$1.00
Dogtooth Tuna	584	$631	$1.08
Yellowfin Tuna	3,932	$7,732	$1.97
Lobster	186	$697	$3.75
Octopus	108	$298	$2.75
TOTAL	34,377	$56,416	$1.64

Table C-7
June 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Miscellaneous	250	$482	$1.93
Bigeye Scad (Atulai)	5	$14	$3.00
Jacks	123	$317	$2.58
Bottom Fish	53	$160	$3.00
Ehu (Red Snapper)	60	$240	$4.00
Gindai (Flower Snap)	18	$71	$4.00
Grouper	195	$574	$2.94
Kalikali (Pink Snap)	46	$165	$3.56
Lehi (Silverjaw)	17	$68	$4.00
Onaga (Red Snapper)	321	$1,557	$4.85
Opakapaka (Pink Snp)	102	$407	$4.00
Uku (Gray Snapper)	68	$176	$2.61
Amberjack	14	$35	$2.50
Reef Fish	6,098	$17,466	$2.86
Wrasse	43	$107	$2.50
Rabbitfish	18	$55	$3.00
Mafute (Emperor)	540	$1,489	$2.76
Parrotfish	168	$505	$3.00
Snapper	34	$84	$2.52
Surgeonfish	536	$1,459	$2.72
Unicornfish	1,761	$4,580	$2.60
Barracuda	134	$268	$2.00
Mahi / Dolphinfish	856	$1,574	$1.84
Marlin	5,709	$6,809	$1.19
Sailfish	36	$36	$1.00
Rainbow Runner	616	$1,065	$1.73
Monchong	106	$264	$2.50
Wahoo	657	$1,449	$2.21
Bonita/skipjack Tuna	14,459	$14,459	$1.00
Dogtooth Tuna	91	$147	$1.61
Yellowfin Tuna	6,439	$12,173	$1.89
Lobster	327	$1,228	$3.75
Octopus	264	$679	$2.57
TOTAL	40,165	$70,162	$1.75

Table C-8
July 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Miscellaneous	105	$282	$2.69
Bigeye Scad (Atulai)	47	$141	$3.00
Black Jack	9	$22	$2.50
Jacks	311	$754	$2.42
Bottom Fish	68	$204	$3.00
Ehu (Red Snapper)	128	$443	$3.46
Gindai (Flower Snap)	42	$167	$4.00
Grouper	256	$767	$3.00
Kalikali (Pink Snap)	22	$75	$3.34
Lehi (Silverjaw)	13	$52	$4.00
Onaga (Red Snapper)	228	$1,125	$4.93
Opakapaka (Pink Snp)	20	$80	$4.00
Uku (Gray Snapper)	11	$26	$2.50
Amberjack	7	$18	$2.50
Reef Fish	5,547	$16,374	$2.95
Rabbitfish	79	$238	$3.00
Mafute (Emperor)	469	$1,291	$2.75
Parrotfish	18	$53	$3.00
Snapper	13	$32	$2.50
Surgeonfish	441	$1,103	$2.50
Unicornfish	2,210	$5,525	$2.50
Goatfish	201	$589	$2.93
Barracuda	134	$268	$2.00
Mahi / Dolphinfish	91	$180	$1.99
Marlin	10,339	$11,403	$1.10
Spearfish	31	$31	$1.00
Sailfish	191	$191	$1.00
Rainbow Runner	501	$820	$1.64
Wahoo	1,062	$1,484	$1.40
Tunas	4	$8	$2.00
Bonita/skipjack Tuna	15,834	$14,705	$0.93
Yellowfin Tuna	4,679	$9,367	$2.00
Lobster	395	$1,482	$3.75
Octopus	361	$931	$2.58
TOTAL	43,867	$70,229	$1.60

Table C-9
August 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	35	$104	$2.95
Jacks	75	$179	$2.40
Bottom Fish	508	$1,465	$2.88
Ehu (Red Snapper)	22	$89	$4.00
Gindai (Flower Snap)	26	$104	$4.00
Grouper	144	$432	$3.00
Kalikali (Pink Snap)	5	$21	$4.00
Lehi (Silverjaw)	17	$68	$4.00
Onaga (Red Snapper)	146	$729	$5.00
Opakapaka (Pink Snp)	10	$40	$4.00
Reef Fish	1,204	$3,522	$2.93
Wrasse	111	$306	$2.75
Rabbitfish	61	$153	$2.50
Mafute (Emperor)	424	$1,166	$2.75
Parrotfish	12	$35	$3.00
Snapper	24	$60	$2.50
Unicornfish	1,000	$2,500	$2.50
Goatfish	72	$215	$3.00
Barracuda	55	$111	$2.00
Marlin	4,281	$3,447	$0.81
Rainbow Runner	229	$346	$1.51
Wahoo	235	$523	$2.23
Bonita/skipjack Tuna	3,178	$3,202	$1.01
Yellowfin Tuna	1,092	$2,185	$2.00
Crabs (Misc)	18	$44	$2.50
Lobster	51	$192	$3.75
Octopus	291	$728	$2.50
TOTAL	13,327	$21,969	$1.65

Table C-10
September 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	244	$609	$2.50
Jacks	259	$668	$2.58
Sharks	6	$15	$2.50
Grouper	23	$69	$3.00
Lehi (Silverjaw)	16	$56	$3.50
Onaga (Red Snapper)	116	$579	$5.00
Reef Fish	1,115	$3,315	$2.97
Wrasse	110	$303	$2.75
Mafute (Emperor)	182	$501	$2.75
Snapper	14	$35	$2.50
Unicornfish	538	$1,349	$2.51
Barracuda	179	$359	$2.00
Mahi / Dolphinfish	159	$292	$1.84
Marlin	546	$660	$1.21
Rainbow Runner	142	$214	$1.50
Wahoo	206	$410	$1.99
Bonita/skipjack Tuna	2,601	$2,389	$0.92
Dogtooth Tuna	25	$32	$1.25
Yellowfin Tuna	669	$1,312	$1.96
Kawakawa	4	$4	$1.00
Lobster	144	$542	$3.77
Octopus	180	$434	$2.41
TOTAL	7,479	$14,145	$1.89

Table C-11
October 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Miscellaneous	64	$160	$2.50
Bigeye Scad (Atulai)	1,065	$1,651	$1.55
Jacks	287	$725	$2.52
Ehu (Red Snapper)	55	$221	$4.00
Gindai (Flower Snap)	46	$186	$4.00
Grouper	249	$619	$2.49
Kalikali (Pink Snap)	38	$115	$3.00
Lehi (Silverjaw)	59	$206	$3.50
Onaga (Red Snapper)	120	$600	$5.00
Opakapaka (Pink Snp)	82	$319	$3.87
Uku (Gray Snapper)	1	$3	$2.75
Amberjack	66	$174	$2.63
Reef Fish	4,212	$12,279	$2.92
Wrasse	28	$78	$2.75
Rabbitfish	67	$201	$3.00
Mafute (Emperor)	547	$1,493	$2.73
Parrotfish	14	$40	$2.85
Snapper	34	$84	$2.47
Surgeonfish	38	$94	$2.50
Unicornfish	3,554	$8,886	$2.50
Barracuda	492	$950	$1.93
Mahi / Dolphinfish	3,346	$5,138	$1.54
Marlin	8,531	$8,930	$1.05
Spearfish	40	$40	$1.00
Sailfish	293	$360	$1.23
Rainbow Runner	678	$1,013	$1.49
Wahoo	5,062	$10,045	$1.98
Bonita/skipjack Tuna	4,748	$4,877	$1.03
Dogtooth Tuna	145	$231	$1.59
Yellowfin Tuna	2,337	$4,880	$2.09
Kawakawa	6	$6	$1.00
Lobster	181	$614	$3.40
Octopus	734	$1,682	$2.29
TOTAL	37,220	$66,899	$1.80

Table C-12
November 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Miscellaneous	45	$123	$2.74
Jacks	26	$68	$2.56
Gindai (Flower Snap)	2	$9	$4.00
Grouper	148	$399	$2.71
Kalikali (Pink Snap)	7	$21	$3.00
Reef Fish	4,700	$13,690	$2.91
Wrasse	201	$484	$2.41
Mafute (Emperor)	128	$337	$2.64
Snapper	25	$63	$2.50
Unicornfish	2,831	$7,106	$2.51
Troll Fish	47	$47	$1.00
Barracuda	193	$386	$2.00
Mahi / Dolphinfish	4,627	$7,244	$1.57
Marlin	2,396	$2,621	$1.09
Sailfish	114	$143	$1.25
Rainbow Runner	304	$428	$1.41
Wahoo	3,901	$7,232	$1.85
Bonita/skipjack Tuna	1,848	$2,039	$1.10
Dogtooth Tuna	292	$365	$1.25
Yellowfin Tuna	1,314	$2,785	$2.12
Kawakawa	75	$92	$1.22
Lobster	19	$70	$3.75
Octopus	547	$1,336	$2.44
TOTAL	23,790	$47,088	$1.98

Table C-13
December 2003 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Miscellaneous	24	$64	$2.70
Bigeye Scad (Atulai)	132	$205	$1.55
Jacks	614	$1,645	$2.68
Ehu (Red Snapper)	21	$85	$4.00
Grouper	21	$48	$2.25
Kalikali (Pink Snap)	1	$2	$3.00
Onaga (Red Snapper)	47	$235	$5.00
Uku (Gray Snapper)	2	$6	$2.75
Reef Fish	4,803	$14,126	$2.94
Mafute (Emperor)	36	$89	$2.48
Parrotfish	36	$102	$2.85
Surgeonfish	144	$359	$2.50
Unicornfish	1,723	$4,519	$2.62
Goatfish	81	$203	$2.50
Troll Fish	51	$76	$1.50
Barracuda	499	$999	$2.00
Mahi / Dolphinfish	3,663	$6,089	$1.66
Marlin	2,475	$2,879	$1.16
Sailfish	199	$199	$1.00
Rainbow Runner	326	$634	$1.95
Wahoo	5,149	$10,085	$1.96
Bonita/skipjack Tuna	2,256	$2,830	$1.25
Dogtooth Tuna	388	$475	$1.23
Yellowfin Tuna	3,139	$6,591	$2.10
Invertebrates	4	$12	$3.00
Lobster	111	$390	$3.52
Octopus	609	$1,501	$2.47
TOTAL	26,552	$54,447	$2.05

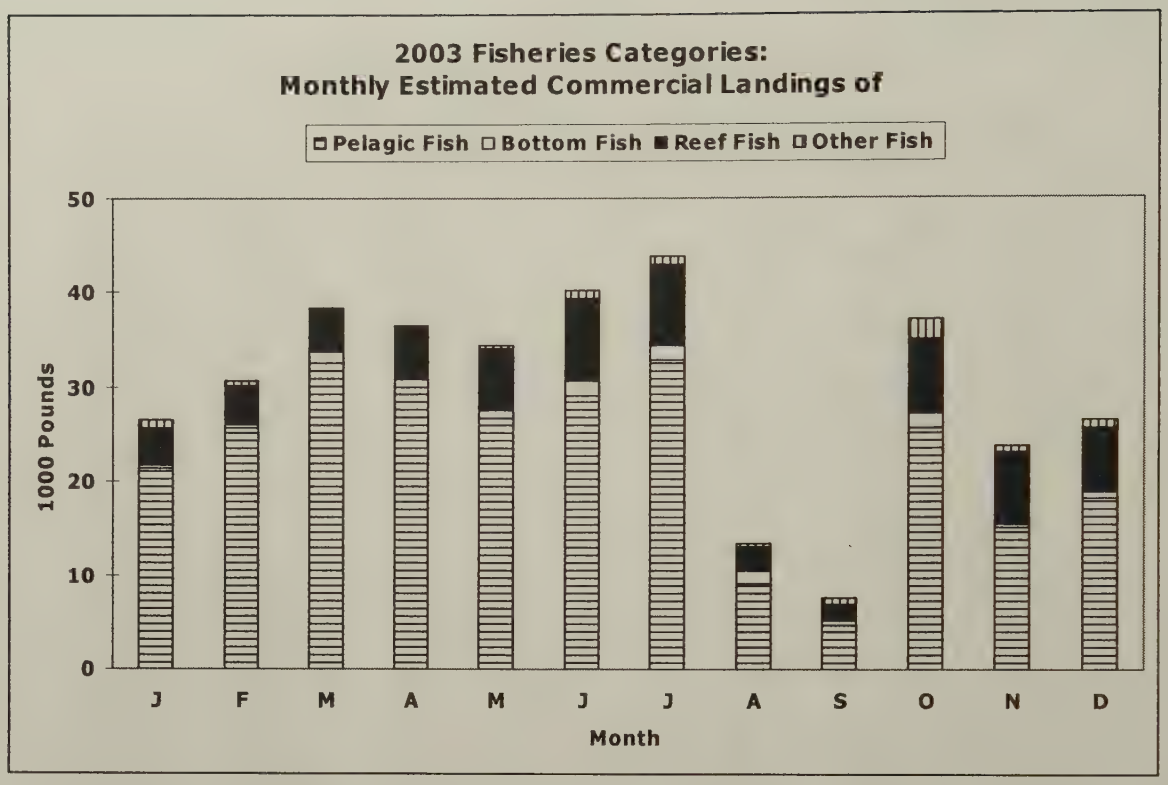


Figure C-1-1

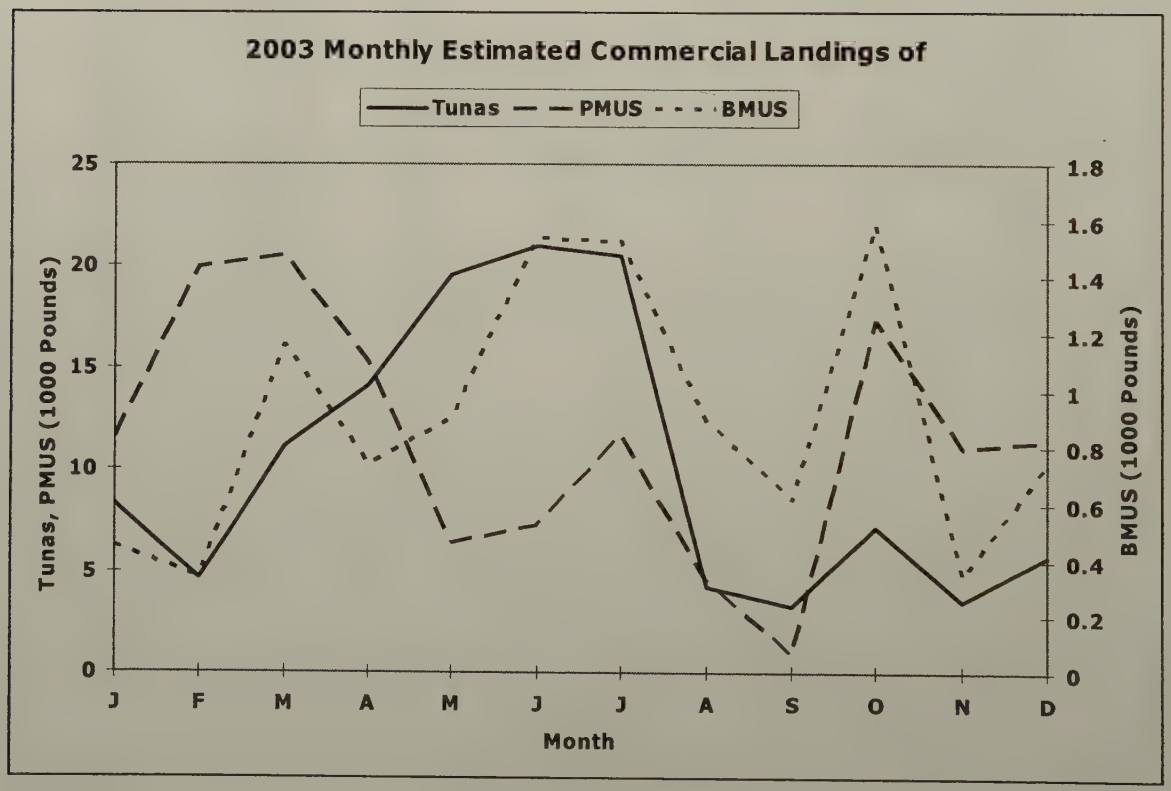


Figure C-1-2

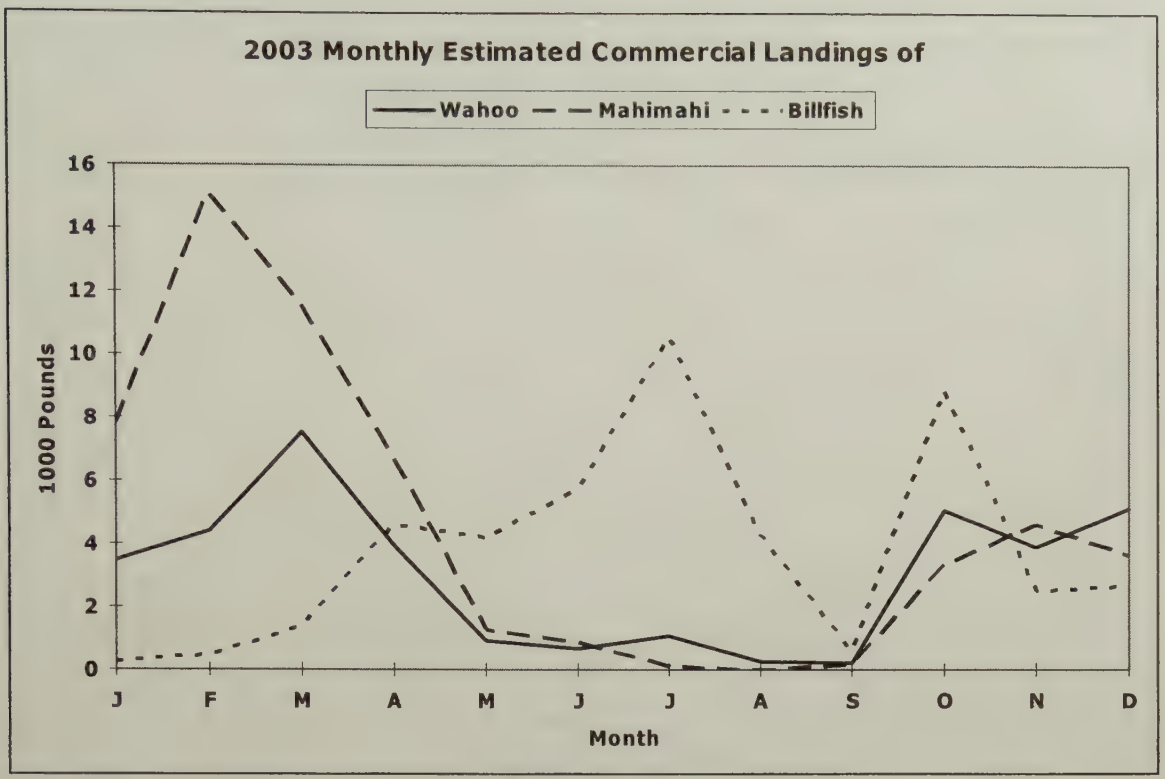


Figure C-1-3

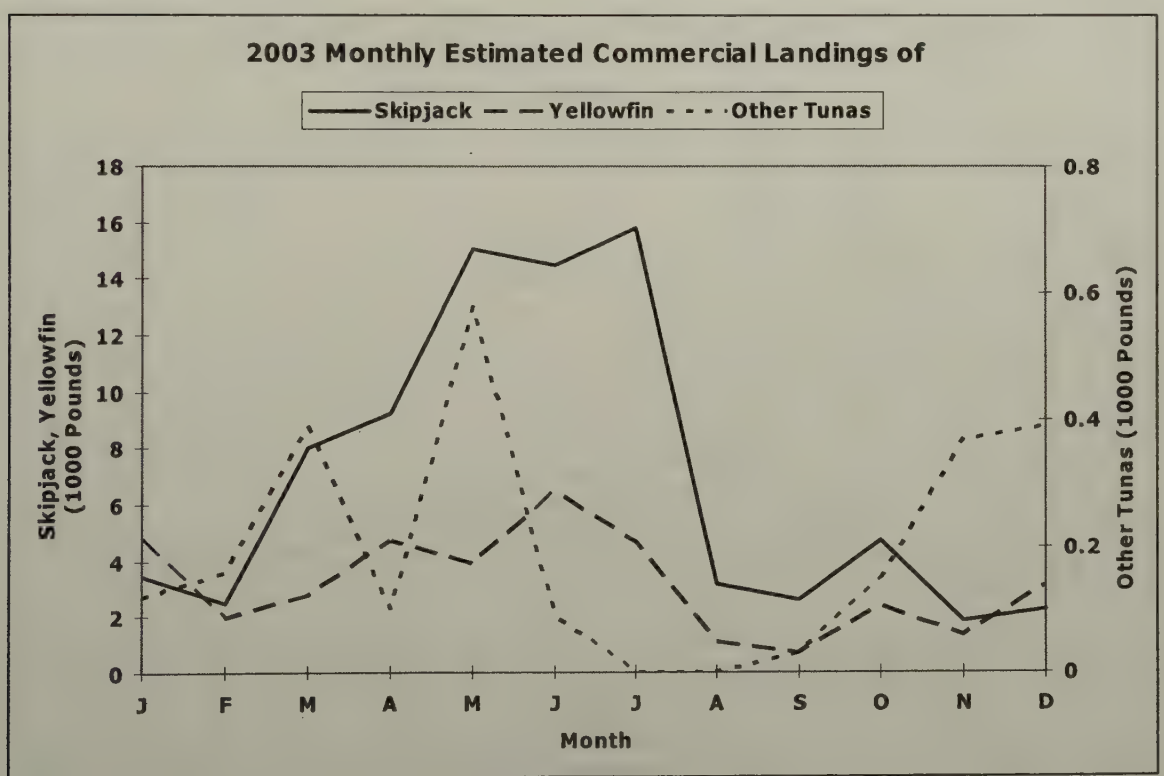


Figure C-1-4

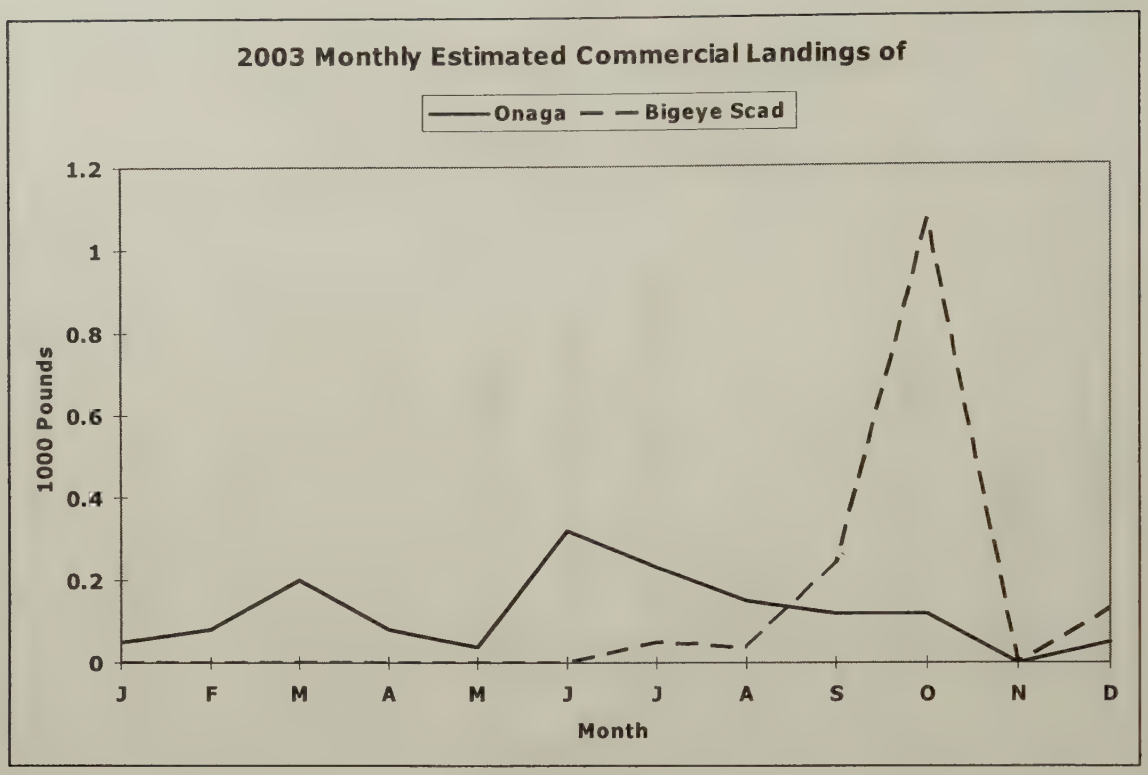


Figure C-1-5

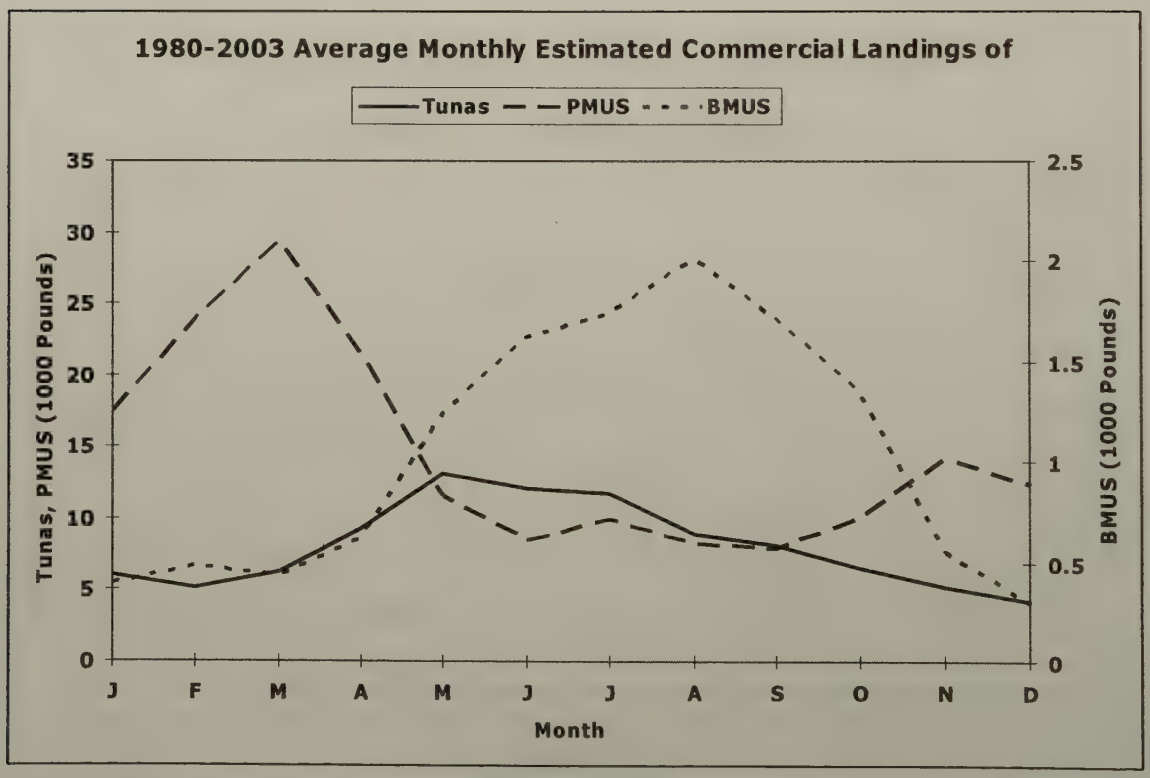


Figure C-2-1

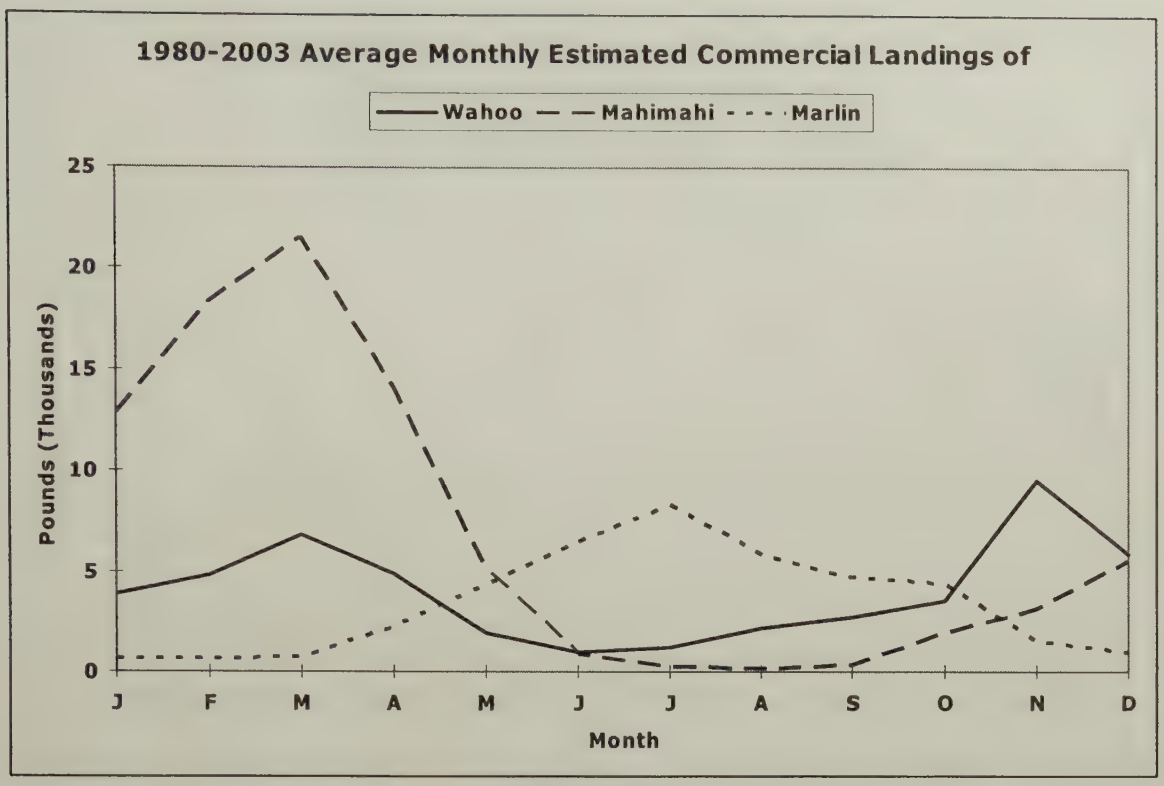


Figure C-2-2

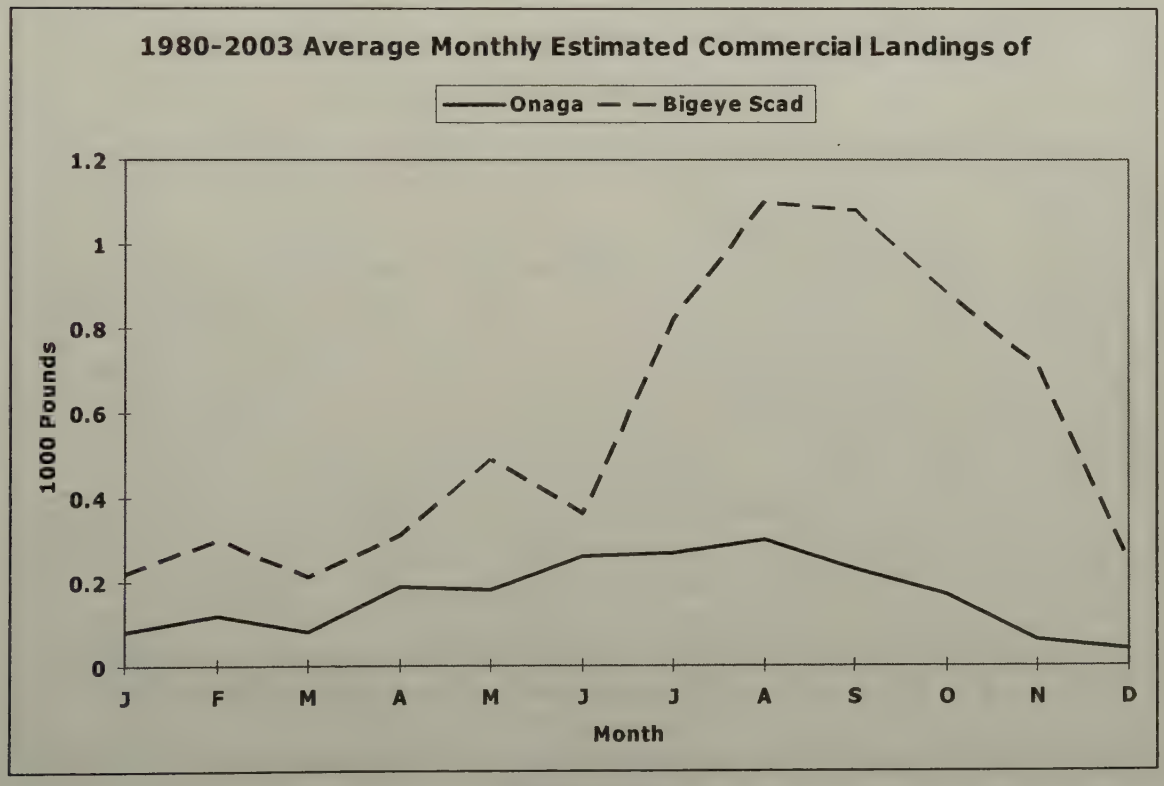


Figure C-2-3

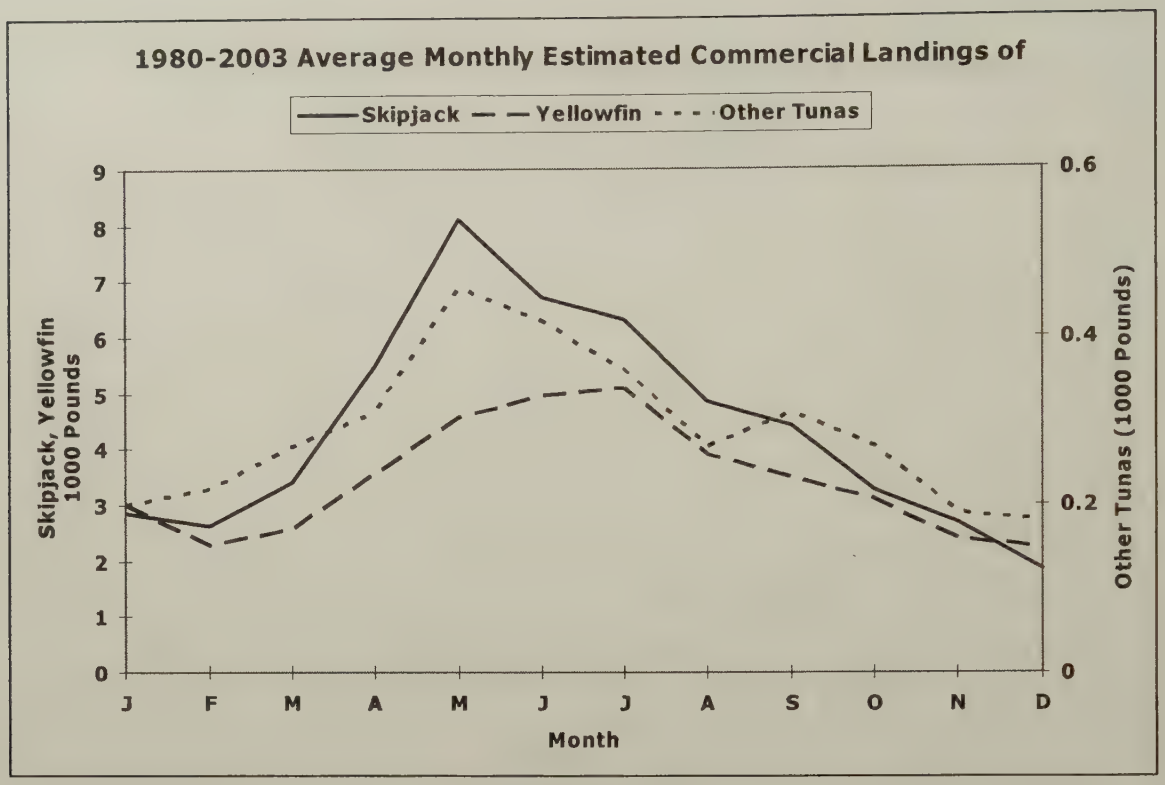


Figure C-2-4

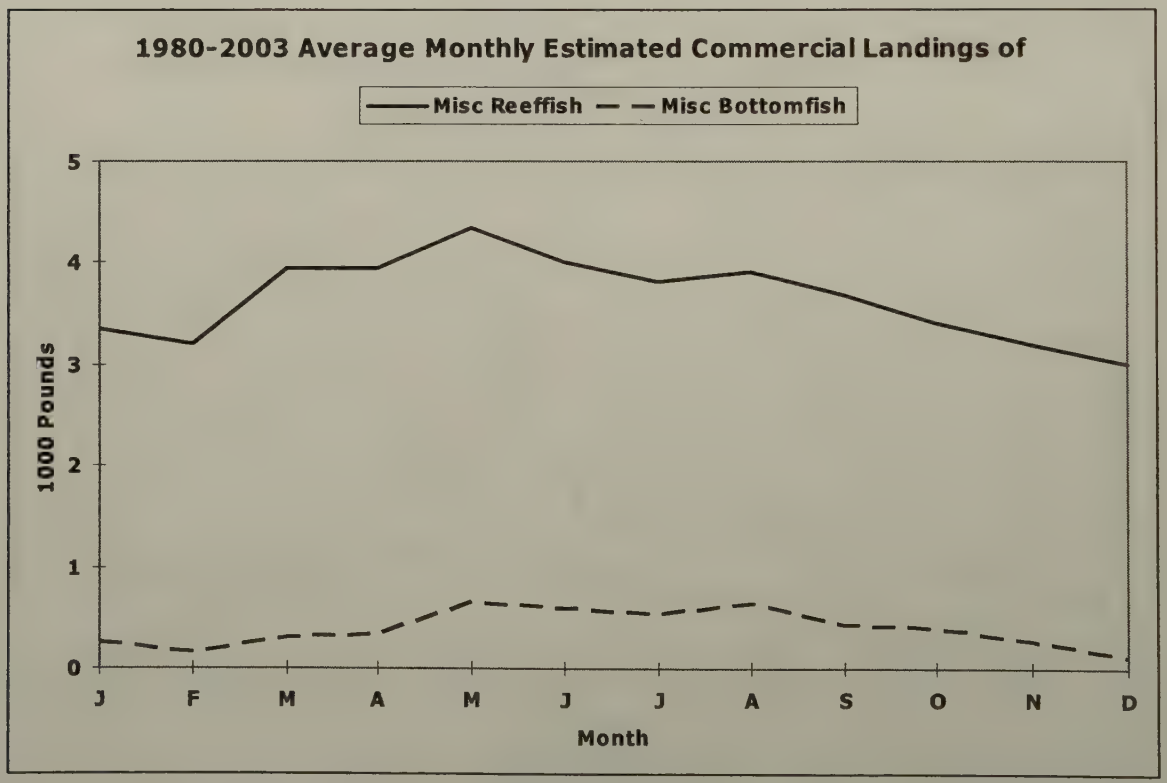


Figure C-2-5

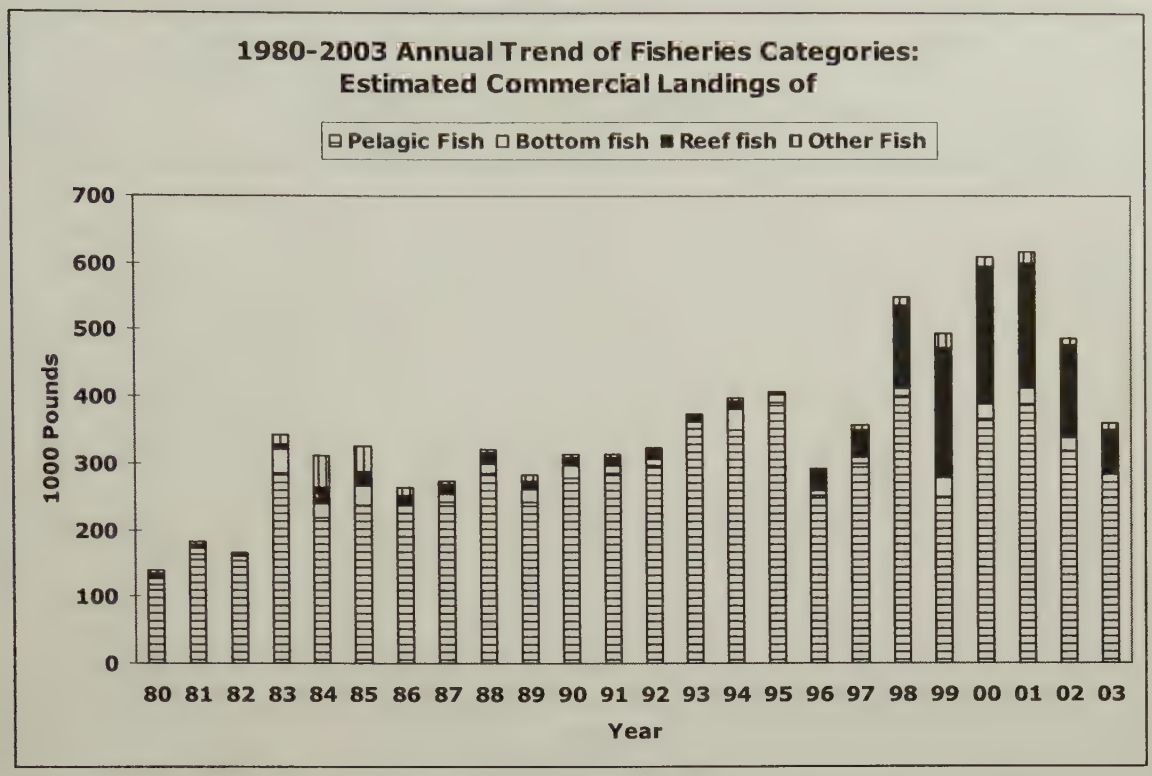


Figure C-3-1

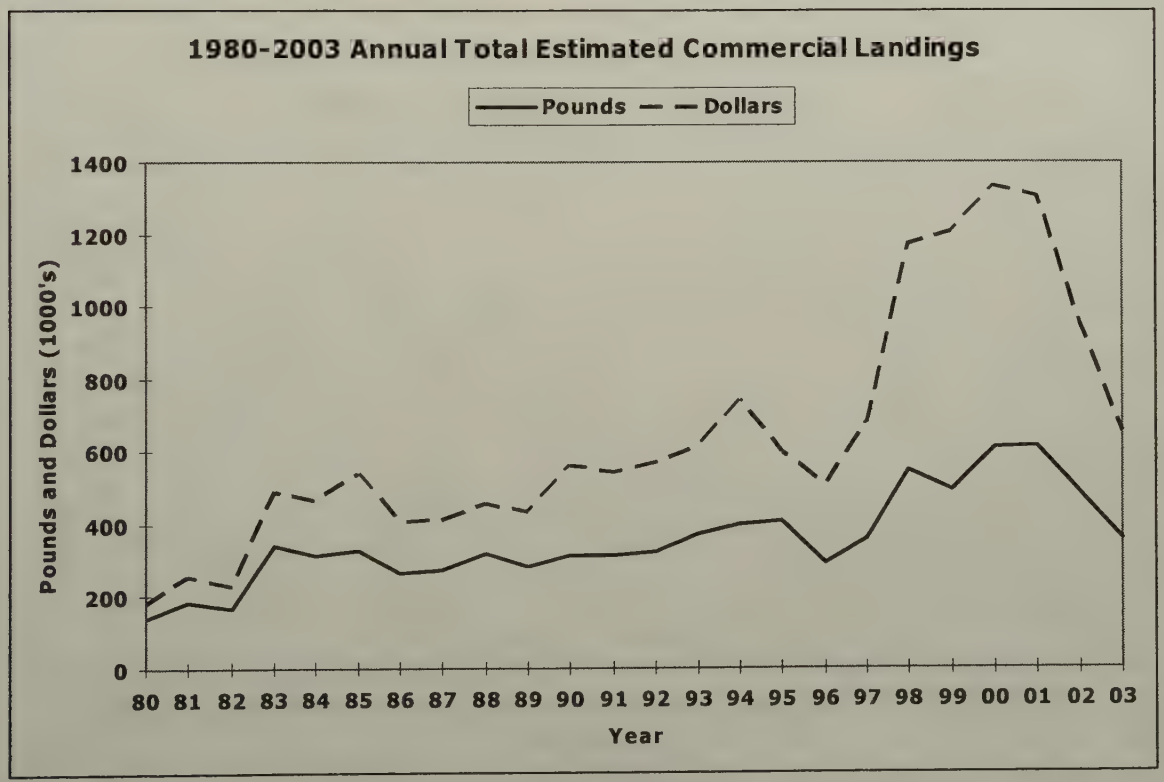


Figure C-3-2

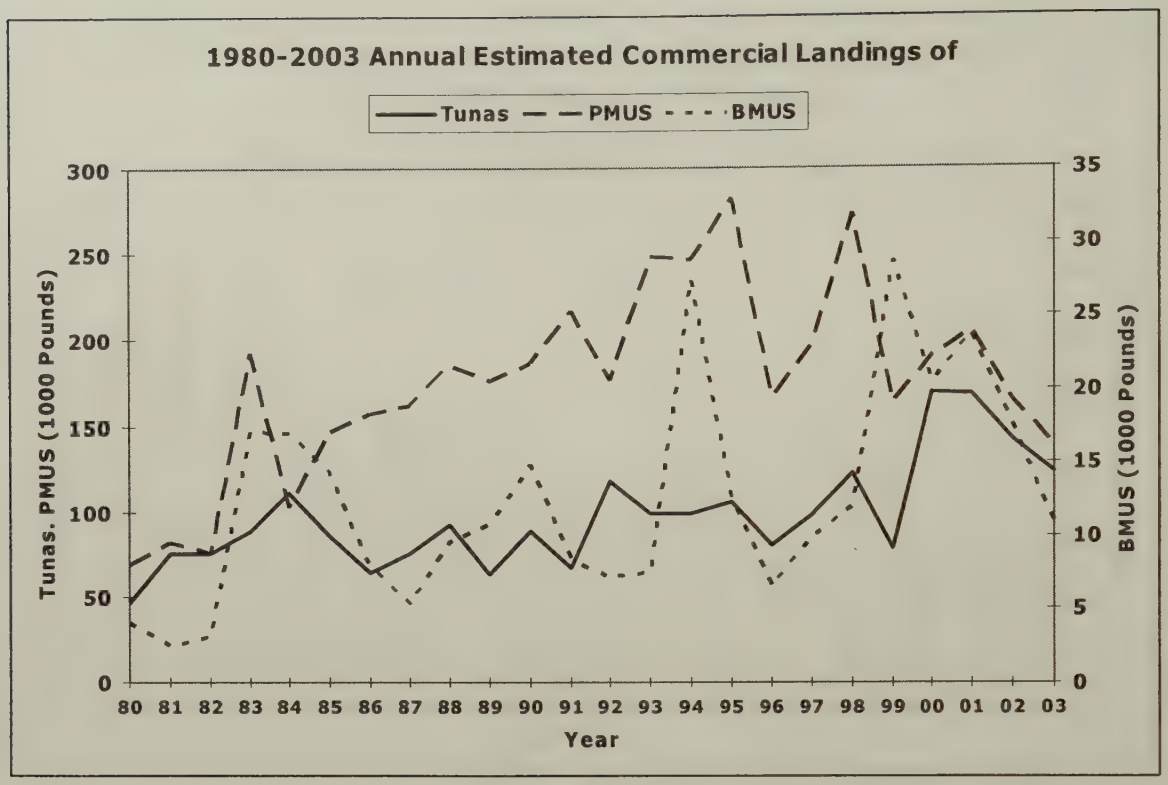


Figure C-3-3

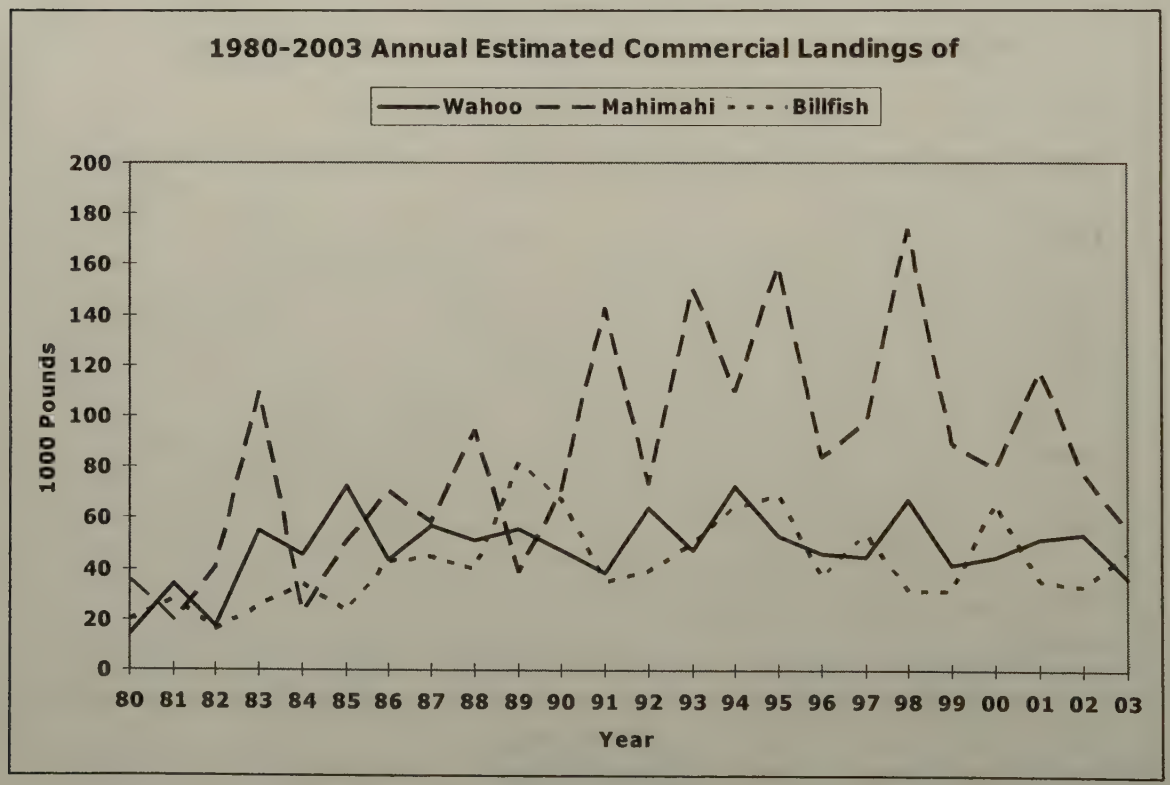


Figure C-3-4

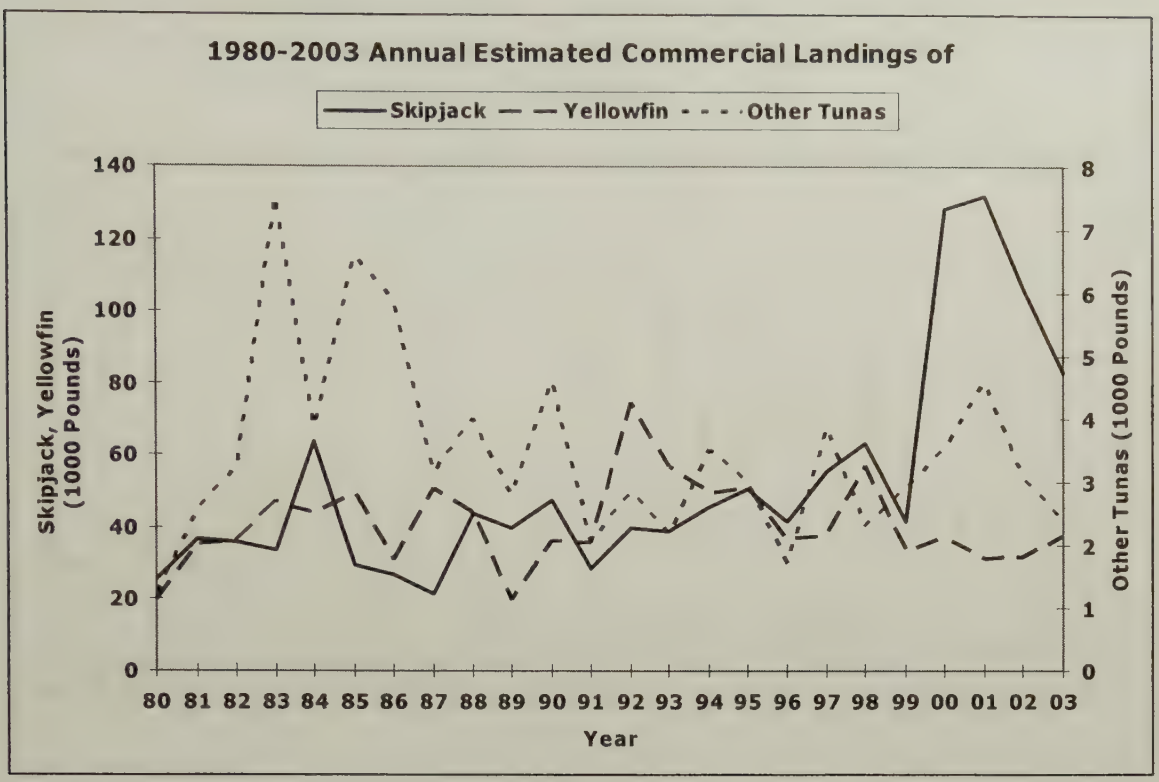


Figure C-3-5

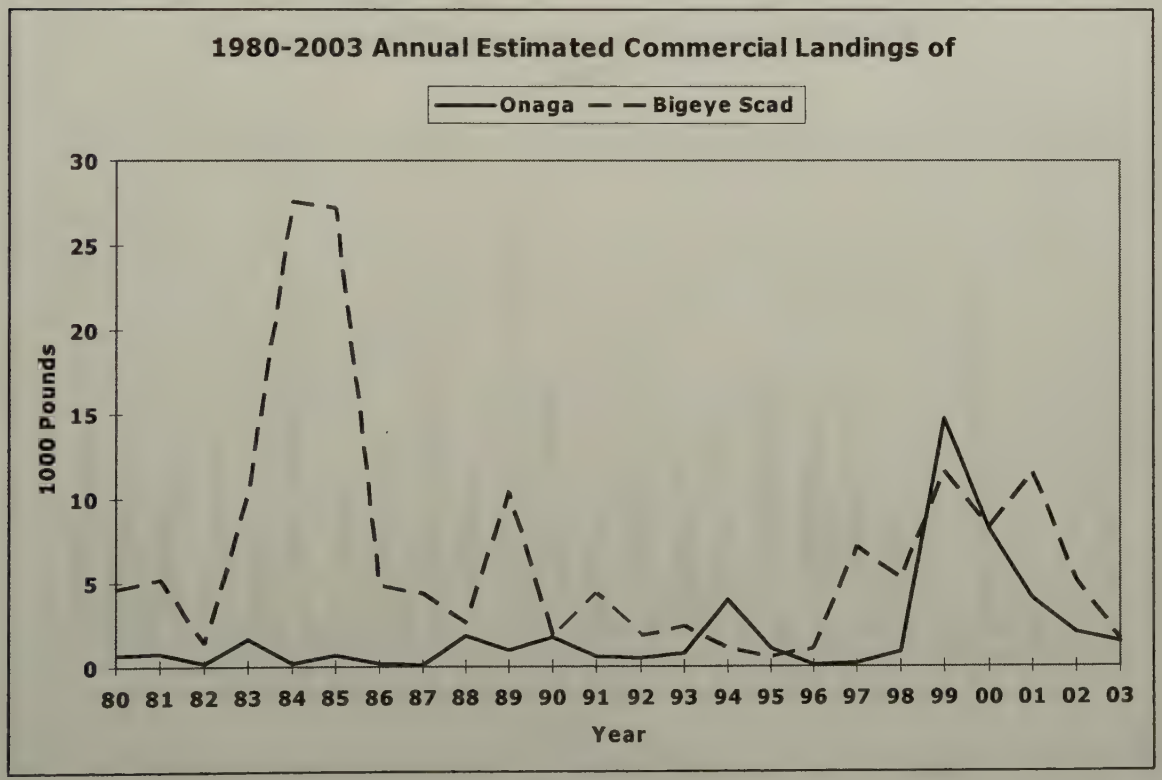


Figure C-3-6

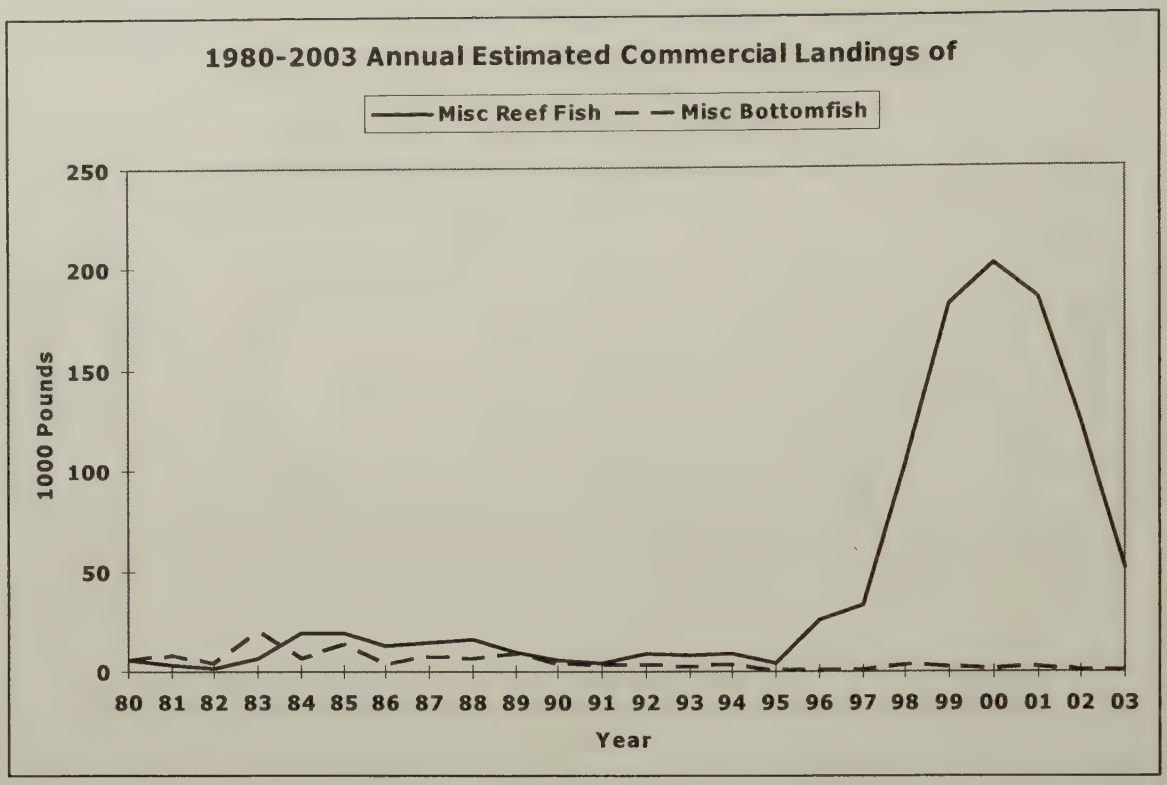


Figure C-3-7

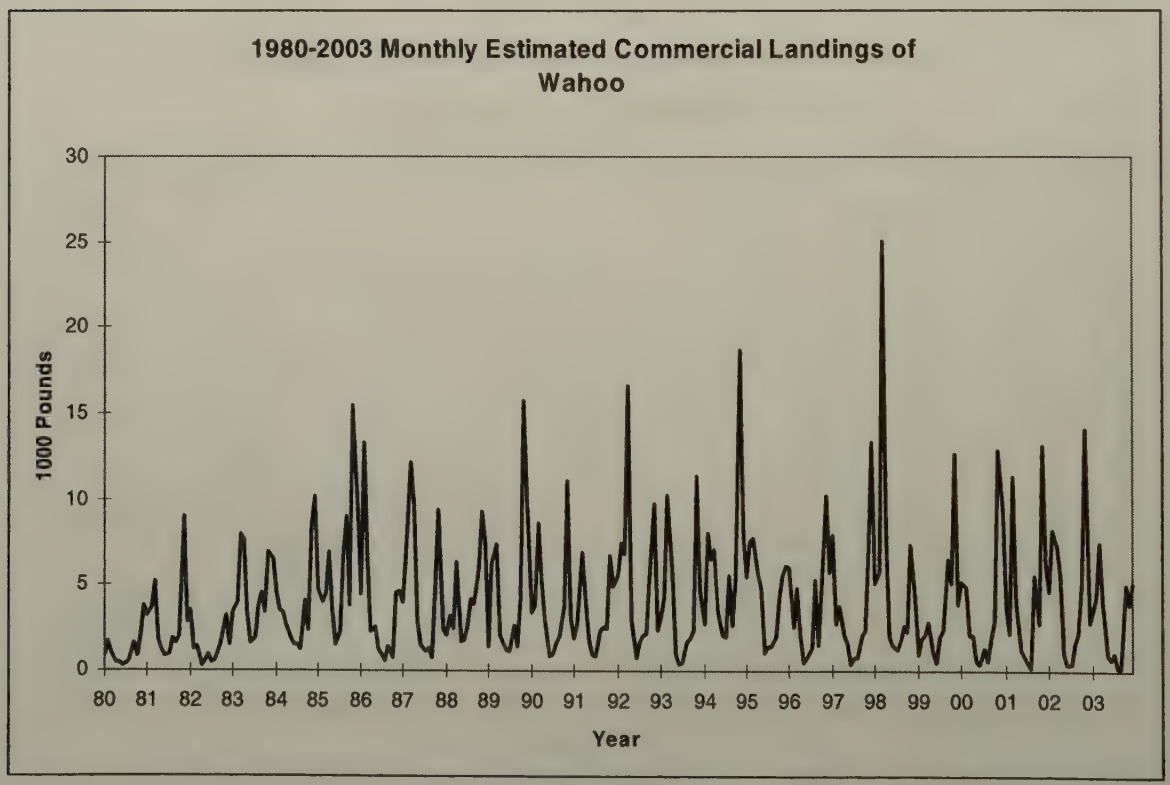


Figure C-4-1

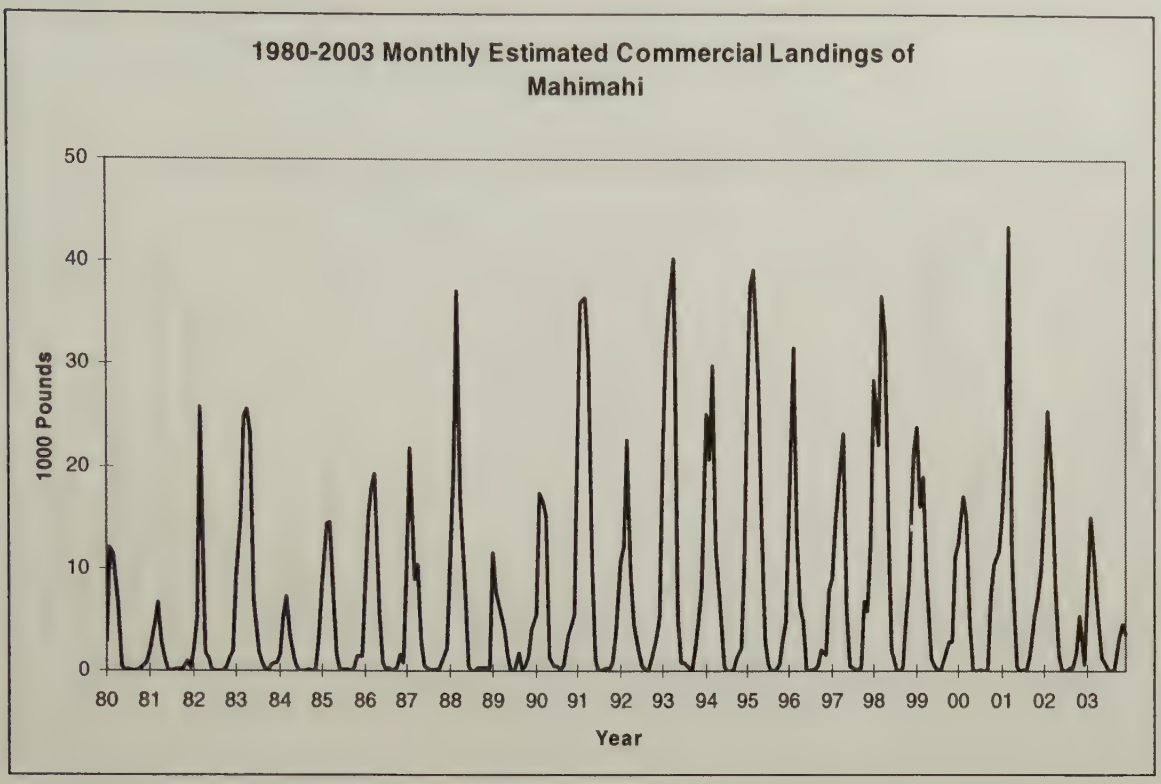


Figure C-4-2

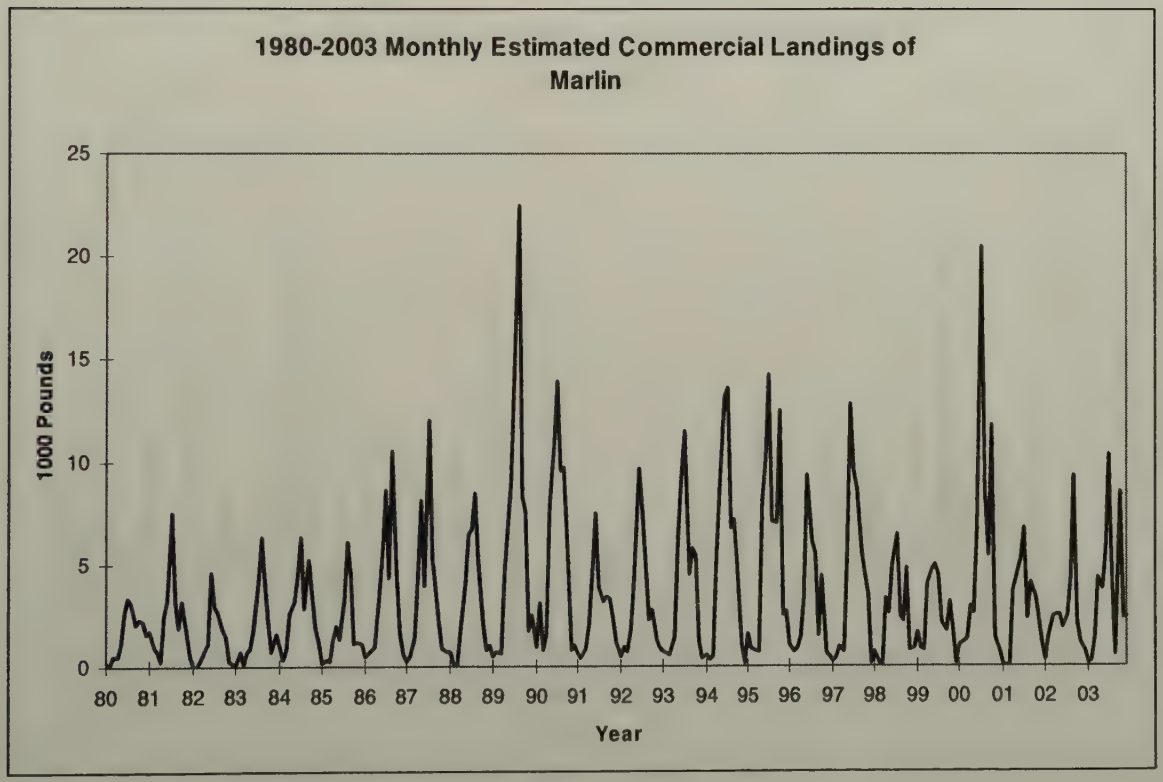


Figure C-4-3

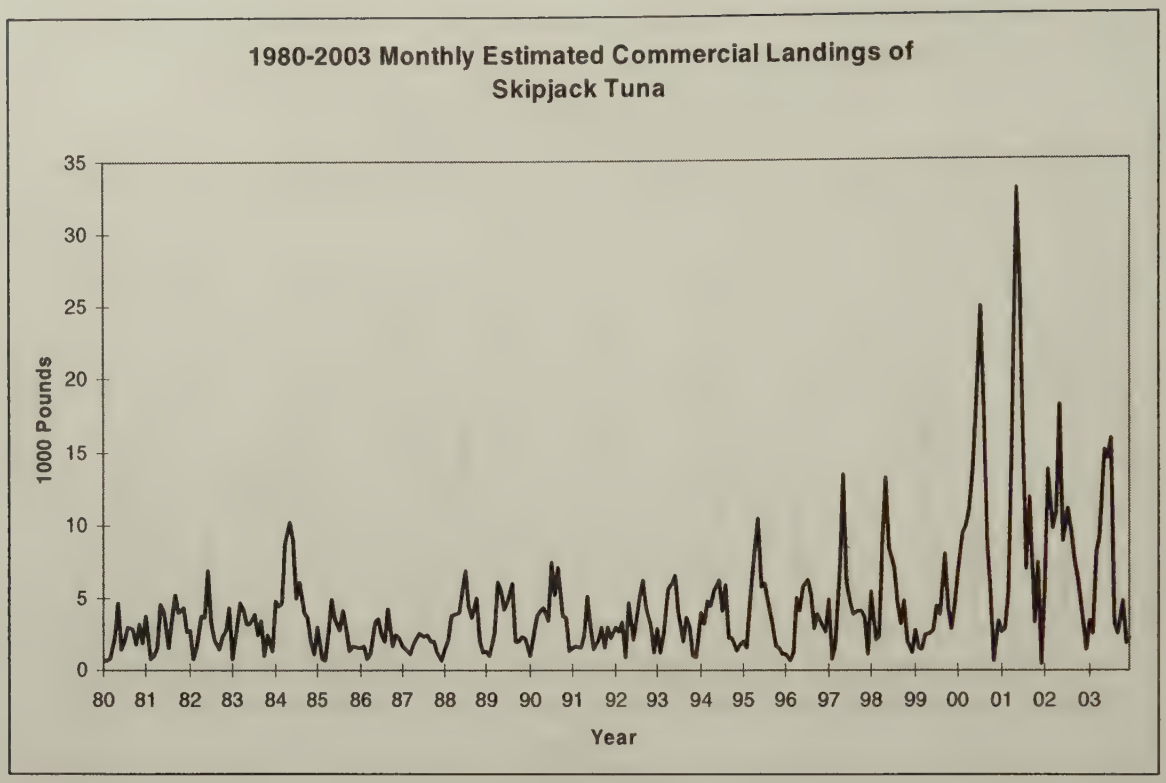


Figure C-4-4

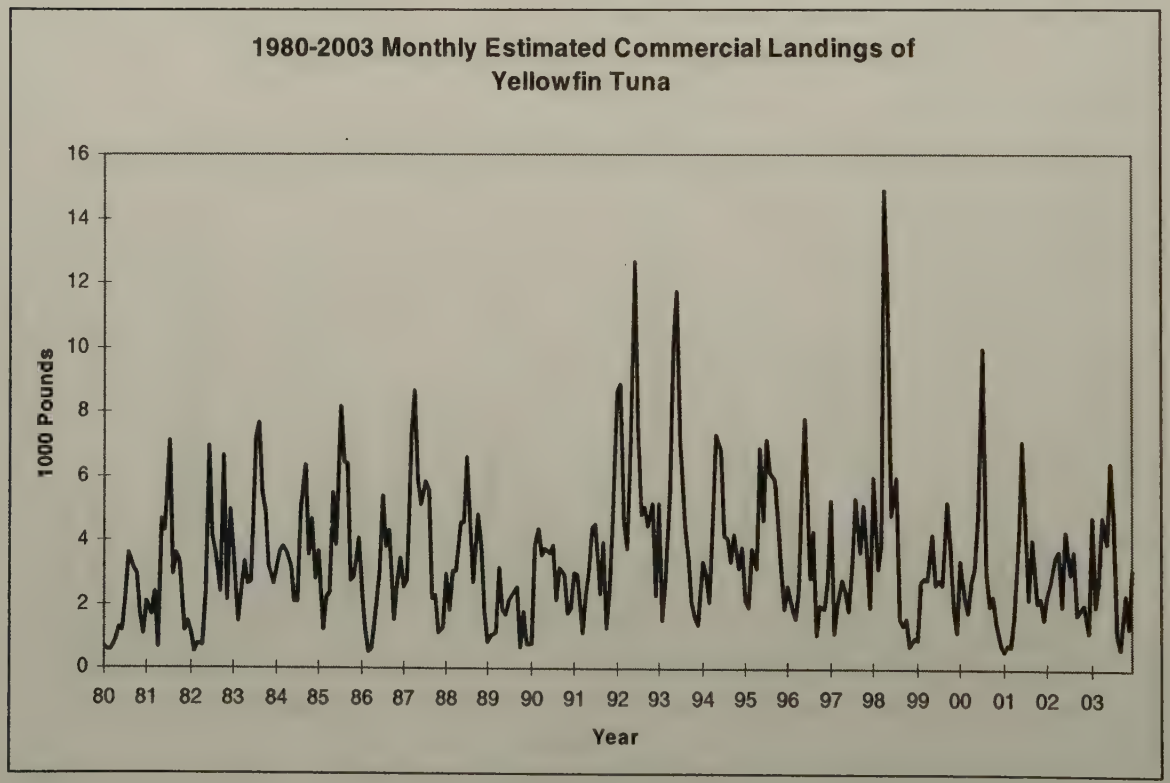


Figure C-4-5

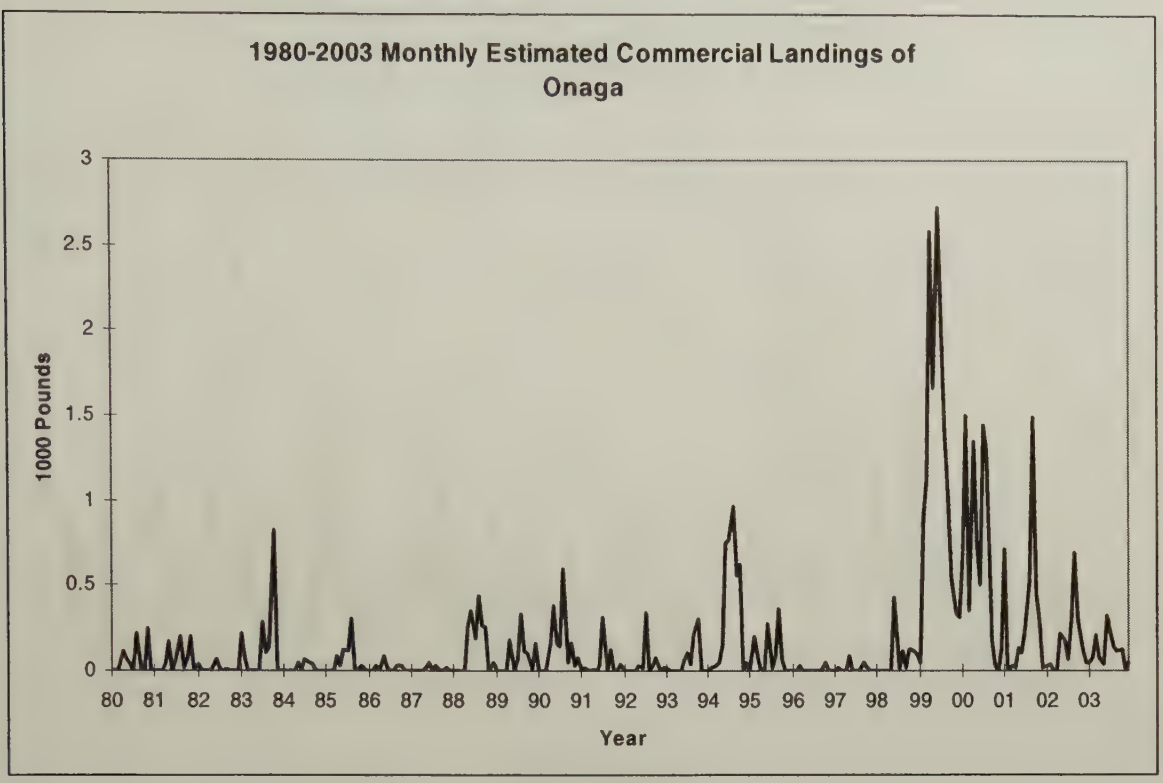


Figure C-4-6

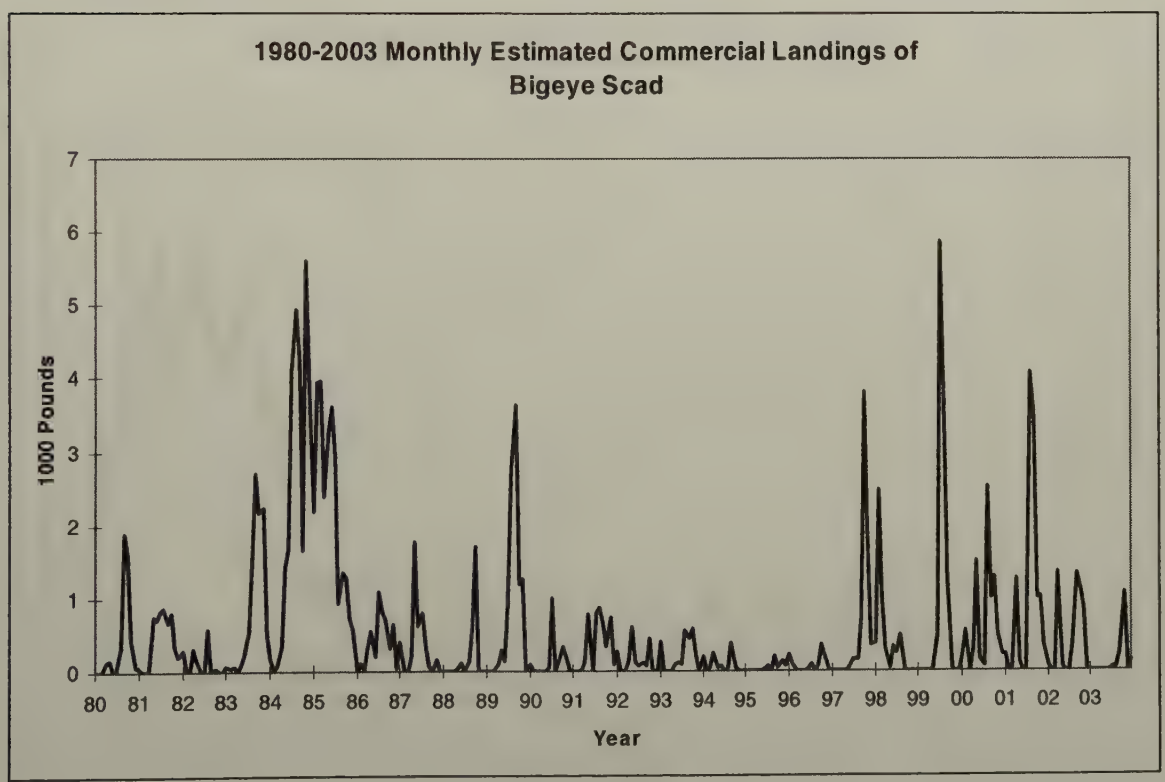


Figure C-4-7

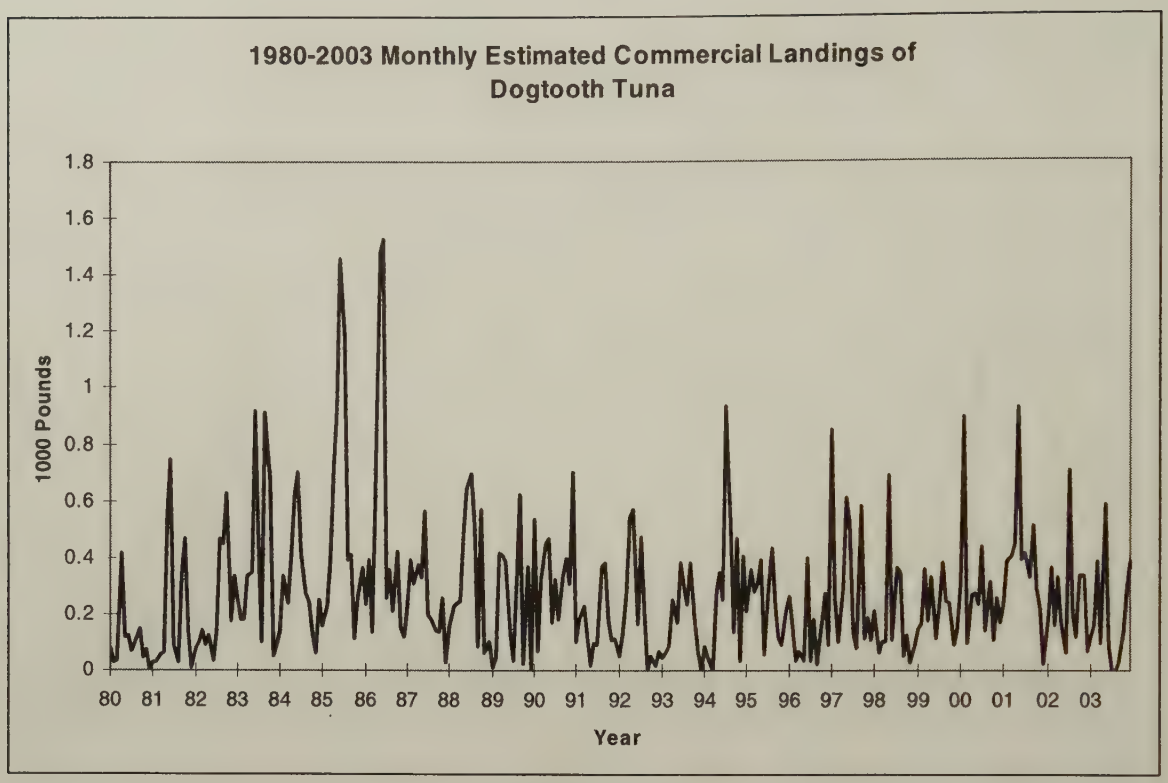


Figure C-4-8

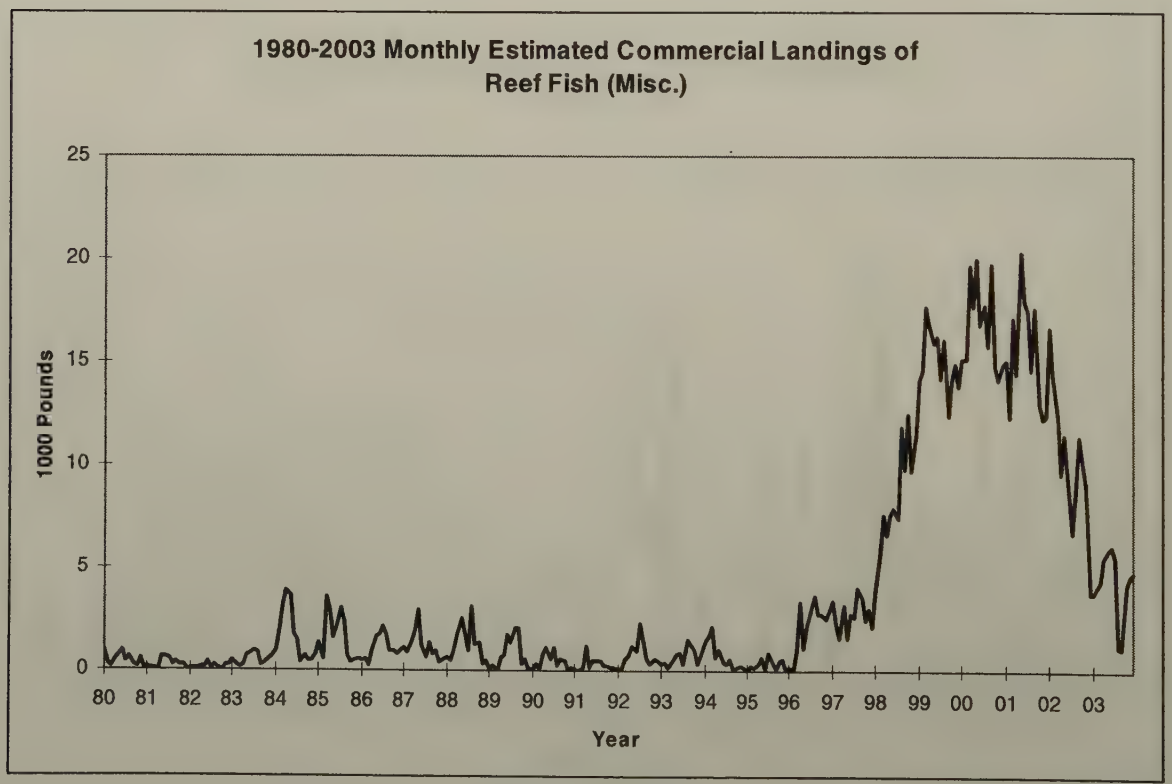


Figure C-4-9

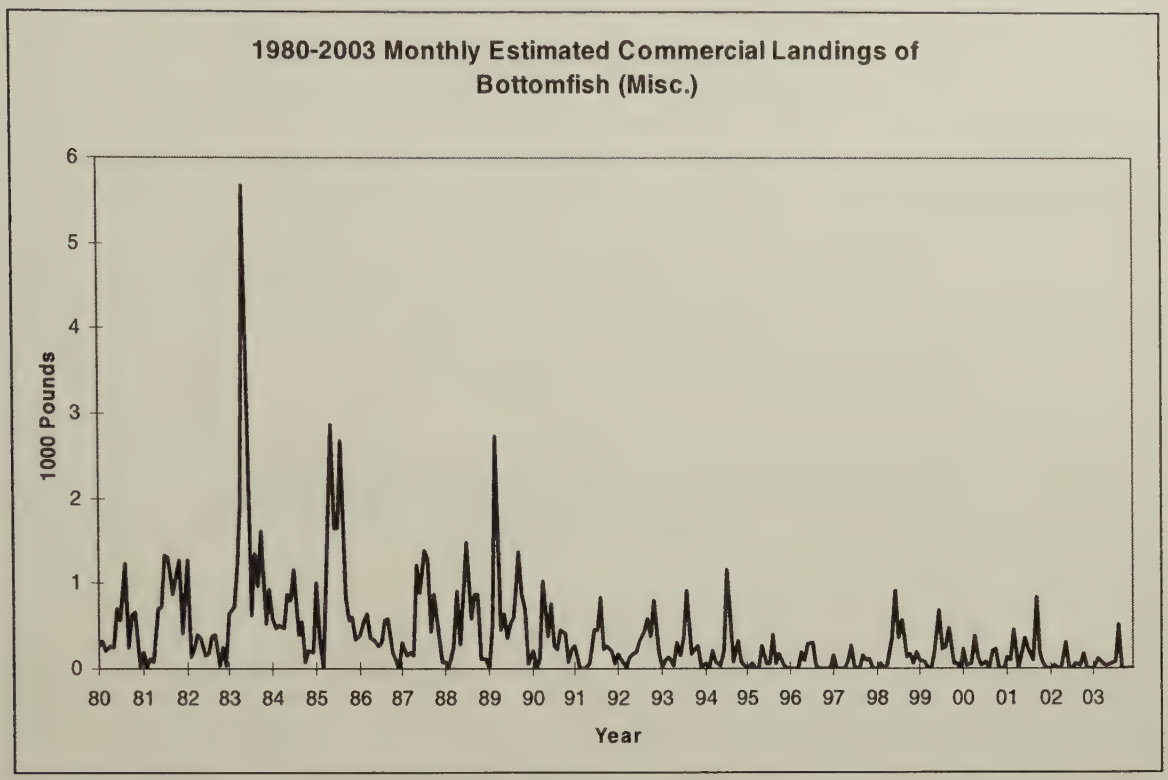

1980-2003 Monthly Estimated Commercial Landings of Bottomfish (Misc.)
1000 Pounds
0
1
2
3
4
5
6
80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03
Year

Figure C-4-10

STATE OF HAWAII 2003 FISHERY STATISTICS

Compiled by

Division of Aquatic Resources

and the

Western Pacific Fishery Information Network

May 2005

CONTENTS

	Page
Introduction	D.1
Data Collecting System	D.2
Data Processing System	D.3
Data Reporting System	D.3
Tables	D.8
Figures	D.34

LIST OF HAWAII SUMMARY TABLES

Table	Title	Page
D-1	2003 Reported Commercial Landings	D.8
D-2	January 2003 Reported Commercial Landings	D.10
D-3	February 2003 Reported Commercial Landings	D.12
D-4	March 2003 Reported Commercial Landings	D.14
D-5	April 2003 Reported Commercial Landings	D.16
D-6	May 2003 Reported Commercial Landings	D.18
D-7	June 2003 Reported Commercial Landings	D.20
D-8	July 2003 Reported Commercial Landings	D.22
D-9	August 2003 Reported Commercial Landings	D.24
D-10	September 2003 Reported Commercial Landings	D.26
D-11	October 2003 Reported Commercial Landings	D.28
D-12	November 2003 Reported Commercial Landings	D.30
D-13	December 2003 Reported Commercial Landings	D.32

LIST OF HAWAII FIGURES

Figure	Title	Page
D-1-1	2003 Fisheries Categories: Reported Commercial Landings of Pelagic, Bottom, Reef, and Other	D.34
D-1-2	2003 Monthly Reported Commercial Landings of Tunas, PMUS, and BMUS	D.34
D-1-3	2003 Monthly Reported Commercial Landings of Wahoo, Mahimahi, and Billfish	D.35
D-1-4	2003 Monthly Reported Commercial Landings of Skipjack, Bigeye Tuna, and Swordfish	D.35
D-1-5	2003 Monthly Reported Commercial Landings of Albacore, Yellowfin, and Other Tunas	D.36
D-2-1	1948-2003 Average Monthly Reported Commercial Landings of Tunas, PMUS, and BMUS	D.36
D-2-2	1948-2003 Average Monthly Reported Commercial Landings of Wahoo and Mahimahi	D.37
D-2-3	1948-2003 Average Monthly Reported Commercial Landings of Striped and Blue Marlin	D.37
D-2-4	1948-2003 Average Monthly Reported Commercial Landings of Skipjack Tuna, Bigeye Tuna, and Swordfish	D.38
D-2-5	1948-2003 Average Monthly Reported Commercial Landings of Opakapaka, Onaga, and Uku	D.38
D-2-6	1948-2003 Average Monthly Reported Commercial Landings of Albacore, Yellowfin and Other Tuna	D.39
D-2-7	1948-2003 Average Monthly Reported Commercial Landings of Bigeye and Mackerel Scad	D.39
D-2-8	1948-2003 Average Monthly Reported Commercial Landings of Spiny Lobster and Saltwater Shrimp	D.40
D-3-1	1979-2003 Annual Reported Commercial Landings of Pelagic, Bottom, Reef, and Other Fish	D.40
D-3-2	1948-2003 Annual Reported Commercial Landings (Pounds and Dollars)	D.41
D-3-3	1948-2003 Annual Reported Commercial Landings of Tunas, PMUS, and BMUS	D.41
D-3-4	1948-2003 Annual Reported Commercial Landings of Wahoo and Mahimahi	D.42
D-3-5	1948-2003 Annual Reported Commercial Landings of Albacore, Yellowfin, and Other Tunas	D.42
D-3-6	1948-2003 Annual Reported Commercial Landings of Skipjack, Bigeye Tuna, and Swordfish	D.43

LIST OF HAWAII FIGURES (cont.)

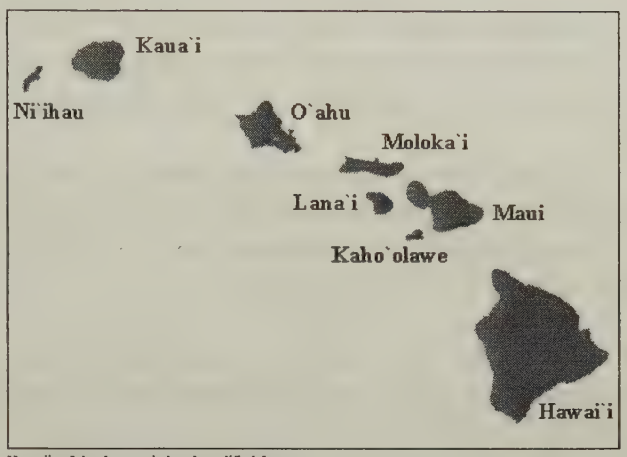
Figure	Title	Page
D-3-7	1948-2003 Annual Reported Commercial Landings of Striped and Blue Marlin	D.43
D-3-8	1948-2003 Annual Reported Commercial Landings of Opakapaka, Onaga, and Uku	D.44
D-3-9	1948-2003 Annual Reported Commercial Landings of Bigeye and Mackerel Scad	D.44
D-3-10	1948-2003 Annual Reported Commercial Landings of Spiny Lobster and Saltwater Shrimp	D.45
D-4-1	1986-2003 Monthly Reported Commercial Landings of Yellowfin Tuna	D.45
D-4-2	1986-2003 Monthly Reported Commercial Landings of Skipjack Tuna	D.46
D-4-3	1986-2003 Monthly Reported Commercial Landings of Bigeye Tuna	D.46
D-4-4	1986-2003 Monthly Reported Commercial Landings of Opakapaka	D.47
D-4-5	1986-2003 Monthly Reported Commercial Landings of Bigeye Scad	D.47
D-4-6	1986-2003 Monthly Reported Commercial Landings of Mahimahi	D.48
D-4-7	1986-2003 Monthly Reported Commercial Landings of Striped Marlin	D.48
D-4-8	1986-2003 Monthly Reported Commercial Landings of Wahoo	D.49
D-4-9	1986-2003 Monthly Reported Commercial Landings of Onaga	D.49
D-4-10	1986-2003 Monthly Reported Commercial Landings of Blue Marlin	D.50
D-4-11	1986-2003 Monthly Reported Commercial Landings of Swordfish	D.50
D-4-12	1986-2003 Monthly Reported Commercial Landings of Albacore Tuna	D.51
D-4-13	1986-2003 Monthly Reported Commercial Landings of Spiny Lobster	D.51
D-4-14	1986-2003 Monthly Reported Commercial Landings of Saltwater Shrimp	D.52

STATE OF HAWAII 2003 FISHERY STATISTICS

INTRODUCTION

The Hawaiian Archipelago stretches northwestward over 1,500 miles.

Location: 19° N latitude, 155° W longitude to about 28° N latitude and 178° W longitude.
Islands: Hawaii, Maui, Lanai, Molokai, Oahu, Kauai, and Niihau (comprise over 99% of the total land area)
Population: 1,257,600 (*The State of Hawaii Data Book, 2003*)
Commercial Catch Breakdown (lbs): Over 85% on Oahu, about 10% on Hawaii, 2% on Kauai, 2% on Maui, and less than 1% on other islands



Hawaiian Islands; copied and modified from: http://satftp.soest.hawaii.edu/space/hawaii/maps/All_Islands_map.710x509.gif; *SOEST Satlab Server*

The fisheries of the State of Hawaii are quite diverse; they vary from shore-based algae harvesting by hand to large-vessel fisheries such as longlining and lobster fishing. There are several major fisheries: tuna fishing through various methods, lobster trapping, hook-and-line bottom fishing for the grouper-snapper-jack complex, net fishing for species such as the bigeye scad, and trolling for such pelagic species as marlin, wahoo, and mahimahi. In 2001, prohibitions were placed on landing shark fins without their associated carcasses and on making shallow-sets with longline gear to target swordfish. Since then, shark and swordfish catches have dropped dramatically, and longline effort has significantly shifted from swordfish to tunas. The number of swordfish-directed trips has remained zero since 2002, and tuna-directed effort has increased from 458 in 1992 to 1,215 in 2003.

Commercial fishing (i.e., selling catches or providing charter fishing services) in Hawaii requires purchasing a commercial marine fishing license. In 2003, there were about 3,218 licensed commercial fishermen. The summary 2003 data provided in this document are current as of November 2004 and were created from a combination of HDAR fishermen and dealer reporting forms processed through their Dealer Reporting System (DRS) and Fisherman Reporting System (FRS) as well as fishery reporting forms (including federal longline logbooks). It is believed to represent over 95% of what may eventually be submitted and processed. The Department of Land and Natural Resources' Hawaii Division of Aquatic

Resources (HDAR) has been collecting statistics on Hawaii's commercial fisheries for over 50 years.

DATA COLLECTING SYSTEM

In the past, data processed in the Reported Landings tables and charts presented in this section were collected from various Fishermen's Reporting System (FRS) Forms. Beginning in October 2002, HDAR implemented several new FRS forms that no longer required sales information reporting as a trade-off for requiring improved catch, effort, and bycatch statistics. The FRS was modified to accommodate these new forms.

The Dealer Reporting System (DRS) was computerized in 2000 and is now a major source of sales data used to create the tables and charts. Data from the NMFS Longline Logbook Program are integrated with DRS and FRS data to create the "best available" summaries presented in this report.

Dealers are required by State law to submit a Commercial Marine Dealer's Report for each month that they are in the business of purchasing marine life. Information collected includes

- Dealer Name
- Dealer Number
- Month and Year
- Date
- First and Last Name from whom fish was bought
- Fisherman's Commercial Marine License Number
- Species Bought
- Pounds Bought
- Pieces Bought
- Amount Paid
- Condition

All holders of a Commercial Marine License (CML) are required by state law to report on their fishing activity. The majority of commercial fishermen use the "Monthly Fishing Report," a replacement for the old General Fish Catch Report (C-3 Form). This form collects data on fishing catch and effort for each day, method, and area fished, and it is processed in the FRS. Information collected includes

- Fisherman's name and commercial license number
- Boat's name and its registration/USCG number
- Month and year fished
- Day fished
- Charter trip (y/n)
- Buoy or area fished
- Fishing method
- Hours fished per method/Area
- Number of net sets
- Number of fishing lines, traps, or net length
- Port of landing
- Species name
- Number landed
- Pounds landed
- Number lost
- Number released

Other FRS data collection forms include the Net, Trap and Dive Activity Report, Tuna Handline Trip Report, Deep Sea Handline Trip Report, Aku Boat Report, NWHI Bottomfish Trip Sales Report, and NWHI Bottomfish Trip Daily Log. Commercial collectors of tropical marine fish are required to have an aquarium permit in addition to their commercial marine license, and they are required to report monthly on the C-6 Aquarium Fish Catch Report. Aquarium fish catches, however, are not included in this report's statistics.

The assumption is made that the data submitted by fishermen are complete and accurate. The HDAR continually attempts to improve the quality of data and decrease the time delays in receiving and processing the data.

No real measurement is available for what percent of the total commercial catch is actually reported to HDAR via fishermen and dealers, but estimates have ranged from about 10% to over 99%, depending on the species and fishery. The overall percent coverage was probably over 80% in 2003.

DATA PROCESSING SYSTEM

When HDAR receives various data reporting forms, staff code and edit the data before keypunching. Forms that fail initial editing are returned for correction and resubmission, or minor problems may be cleared up over the telephone. Delinquency notices are sent to those who fall more than a few months behind in their reporting. Once the data are keypunched, HDAR staff use computer-generated reports to verify and correct errors in the database. When the database is considered to be reasonably complete and error free, it is ready for use in producing various summary catch reports.

DATA REPORTING SYSTEM

More than 150 marine species and species groups are recorded in HDAR's monthly landings reports, many of which are insignificant in the total catch. To help reduce this document's size and improve the usability of the tables, WPacFIN staff combined some of the less important species, reorganized the order of presentation, created a new species coding system, and translated all records in the database. The new coding system has 100 species and species groups based on flexible ecological and phylogenetic criteria. All of the commercially important pelagic and bottomfish species or unique species groups have individual codes and are reported separately. Marine pond catches are included in the species totals, but make up less than 0.4% of the total landings for each year.

The monthly and annual reports included in this document contain the common name, pounds caught, pounds sold, value rounded to the nearest dollar, and the average price per pound for each species. Each monthly report contains a subtotal for the sum of all species for that month. Several types of graphs are also included. Please note that some of the charts in this volume are new or modified from earlier volumes. More up-to-date tables

and charts are available at the WPacFIN Website at <http://www.pifsc.noaa.gov/wpacfin>.

The following species, species groups, and abbreviations are used in the tables and graphs of Hawaii's fishery statistics:

> *Note: Many of the species included in this report have been recategorized over the years. For example, the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the Pelagic Management Unit Species (PMUS) category. However, this FSWP volume will maintain the original species categorizations from previous volumes for comparative purposes. As such, tunas are kept in a separate category.*

I. Pelagic Management Unit Species (PMUS)

Mahimahi (dolphin)	Wahoo
Blue Marlin	Black Marlin
Striped Marlin	Shortnose Spearfish
Sailfish	Broadbill Swordfish
Sharks	Billfish (misc.)

II. Bottomfish Management Unit Species (BMUS)

Deep Water Jacks (misc.)	Amberjack
Pig-lipped Ulua (jack)	White Ulua
Hawaiian Grouper	Blue-lined Snapper
Ehu (red snapper)	Gindai (flower snapper)
Kalekale (pink snapper)	Lehi (silverjaw snapper)
Onaga (long tailed snapper)	Opakapaka (pink snapper)
Uku (gray snapper)	Snappers

III. Billfish

Billfish	Blue Marlin
Black Marlin	Striped Marlin
Shortnose Spearfish	Sailfish
Broadbill Swordfish	

IV. Tunas

Other Tunas	Skipjack Tuna
Yellowfin Tuna	Albacore
Bigeye Tuna	

V. Other Tunas

Misc. Tunas	Bluefin Tuna
Frigate Tuna	Kawakawa

VI. Fisheries Categories

A. Pelagic Species

All PMUS and tuna species including the following:

Rainbow Runner	Barracuda
Japanese Mackerel	Frigate Tuna
Ocean Sunfish	Ocean Moonfish

B. Bottomfish

All BMUS plus the following:

Blue Crevally	Dobe Ulua
Paapaa Ulua	Blue Spot Grouper
Porgy	

C. Reef Fish

Reef Jacks (misc.)	Squirrelfish
Trumpetfish	Scorpionfish
Mountain Bass	Bigeyes
Cardinalfish	Goatfish
Rudderfish	Butterflyfish
Damselfish	Hawkfish
Tipapia	Wrasse
Parrotfish	Gobies
Surgeonfish-Tangs	Flounders
Triggerfish	Filefish
Pufferfish	

D. Other

Miscellaneous	Rays
Eels	Bigeye Scad (akule)
Mackerel scad (opelu)	Leatherback
Anchovy	Ten pounder
Bonefish	Herring-sardine
Milkfish	Flyingfish
Needlefish	Halfbeaks
Threadfin	Mullet
Pomfret	Snake Mackerel
Freshwater Fish	Spiny Lobster
Slipper Lobster	Crabs
Shrimp (freshwater)	Shrimp (saltwater)

D. Other (cont.)

Octopus
Limpets (saltwater)
Clams
Precious Corals
Sea Cucumbers
Algae
Squid
Limpets (freshwater)
Stoney Corals
Sea Urchins
Sea Turtles

This page is intentionally left blank.

Table D-1
2003 Annual Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	5,497	5,496	$14,115	$2.57
Sharks	289,637	289,637	$107,949	$0.37
Eels	921	921	$1,021	$1.11
Bigeye scad (akule)	437,928	328,443	$514,618	$1.57
Mackerel scad	337,674	246,011	$474,452	$1.93
Leatherback	580	572	$814	$1.42
Ten pounder	1,006	527	$608	$1.15
Bonefish	3,438	3,255	$3,330	$1.02
Herring/sardine	2	0	$0	$0.00
Milkfish	1,161	1,095	$1,465	$1.34
Needlefish	154	110	$162	$1.47
Threadfin	302	263	$756	$2.88
Mullet	9,607	9,198	$30,798	$3.35
Pomfret	458,674	458,673	$777,185	$1.69
Oilfish	278,118	278,118	$417,332	$1.50
Jacks (Misc)	2,269	2,058	$4,231	$2.06
Amberjack	5,482	1,852	$1,212	$0.65
Sasa Ulua	511	326	$836	$2.57
Pig-lipped ulua	27,405	24,780	$48,030	$1.94
Dobe ulua	15,866	3,909	$6,893	$1.76
Papa ulua	3,090	1,793	$3,987	$2.22
White ulua	13,589	11,531	$20,787	$1.80
Black ulua	4,530	3,753	$5,966	$1.59
Blue crevally	7,990	6,780	$13,205	$1.95
Hawaiian Grouper	50,909	45,830	$182,111	$3.97
Blue spot grouper	1,581	1,093	$3,494	$3.20
Snappers	3,112	3,079	$8,773	$2.85
Yellow-Tail Kali	8	0	$0	$0.00
Blue lined snapper	40,324	31,822	$35,061	$1.10
Ehu (red snapper)	28,169	27,445	$106,536	$3.88
Gindai (flower snapper)	5,135	4,786	$13,792	$2.88
Golden Kalekale	14,690	14,481	$43,231	$2.99
Lehi (silverjaw)	10,515	9,964	$32,244	$3.24
Onaga (red snapper)	134,514	131,147	$730,009	$5.57
Opakapaka (pink snapper)	144,447	140,836	$735,768	$5.22
Uku (gray snapper)	152,680	142,232	$345,730	$2.43
Porgy	4,736	4,470	$10,435	$2.33
Other Reeffish	295	293	$209	$0.71
Reef jacks	293	201	$637	$3.17
Squirrelfish	46,600	46,600	$153,144	$3.29
Trumpetfish	174	165	$244	$1.48
Scorpionfish	3,596	3,531	$13,692	$3.88
Mountain bass	3,271	3,263	$12,905	$3.95

Table D-1
2003 Annual Reported Commercial Landings (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Bigeyes	6,041	6,042	$18,744	$3.10
Goatfish	56,883	48,442	$135,128	$2.79
Rudderfish	23,672	20,128	$22,502	$1.12
Damselfish	999	879	$1,973	$2.25
Hawkfish	359	354	$846	$2.39
Tilapia	1,019	889	$1,418	$1.60
Wrasse	6,134	4,363	$17,445	$4.00
Parrotfish	67,587	67,443	$168,771	$2.50
Surgeon/tangs	116,343	112,240	$166,826	$1.49
Flounders	57	54	$89	$1.65
Filefish	2,559	2,531	$2,801	$1.11
Pufferfish	1	0	$0	$0.00
Other Pelagic	1,095,317	1,095,317	$1,509,403	$1.38
Rainbow runner	5,629	4,859	$7,619	$1.57
Mahimahi (dolphin)	1,312,811	1,312,813	$2,914,089	$2.22
Barracudas	23,988	23,987	$22,909	$0.96
Wahoo	981,769	981,769	$1,904,079	$1.94
Misc Tunas	23,451	22,104	$62,145	$2.81
Skipjack tuna	1,331,711	1,331,277	$1,332,087	$1.00
Yellowfin tuna	3,422,467	3,422,467	$8,636,007	$2.52
Albacore	1,341,333	1,341,333	$1,561,267	$1.16
Bigeye tuna	8,259,017	8,259,016	$25,779,565	$3.12
Kawakawa	7,957	4,302	$4,589	$1.07
Other Billfish	2,314	2,208	$2,907	$1.32
Broadbill swordfish	330,590	330,588	$721,440	$2.18
Blue marlin	952,776	952,777	$823,425	$0.86
Black marlin	6,332	4,069	$4,374	$1.07
Striped marlin	1,370,253	1,370,255	$1,155,267	$0.84
Shortnose spearfish	516,935	516,934	$265,130	$0.51
Sailfish	3,493	3,493	$2,678	$0.77
Spiny Lobster	6,953	5,557	$66,670	$12.00
Slipper Lobster	36	34	$273	$7.95
Crabs	25,931	15,642	$60,436	$3.86
Shrimp (saltwater)	5,850	1,620	$9,173	$5.66
Octopus	25,179	25,008	$72,050	$2.88
Squid	3,386	3,290	$5,647	$1.72
Limpets (saltwater)	11,583	11,517	$67,657	$5.87
Invertebrates	7,670	4,675	$119,189	$25.50
Algae	9,779	6,150	$41,767	$6.79
TOTAL	23,916,644	23,606,761	$52,566,152	$2.23

Table D-2
January 2003 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	504	504	$1,320	$2.62
Sharks	23,797	23,797	$13,000	$0.55
Eels	25	25	$38	$1.50
Bigeye scad (akule)	13,222	13,222	$27,089	$2.05
Mackerel scad	23,394	14,067	$27,393	$1.95
Leatherback	46	44	$61	$1.39
Bonefish	141	54	$55	$1.01
Milkfish	7	7	$9	$1.25
Needlefish	4	4	$8	$1.84
Threadfin	31	31	$110	$3.55
Mullet	11	10	$48	$4.75
Pomfret	27,681	27,681	$60,024	$2.17
Oilfish	26,359	26,359	$36,460	$1.38
Jacks (Misc)	151	151	$283	$1.88
Amberjack	886	190	$126	$0.67
Sasa Ulua	5	5	$13	$2.50
Pig-lipped ulua	1,401	228	$642	$2.81
Dobe ulua	5	3	$6	$2.00
Papa ulua	212	212	$475	$2.24
White ulua	799	272	$480	$1.76
Black ulua	102	0	$0	$0.00
Blue crevally	186	81	$162	$2.00
Hawaiian Grouper	2,165	1,572	$7,365	$4.68
Blue spot grouper	46	2	$6	$3.50
Snappers	139	139	$503	$3.62
Blue lined snapper	1,862	1,862	$2,142	$1.15
Ehu (red snapper)	1,885	1,885	$8,594	$4.56
Gindai (flower snapper)	429	305	$973	$3.19
Golden Kalekale	1,433	1,433	$4,144	$2.89
Lehi (silverjaw)	1,923	1,785	$6,517	$3.65
Onaga (red snapper)	9,159	9,159	$56,867	$6.21
Opakapaka (pink snapper)	19,976	19,976	$113,146	$5.66
Uku (gray snapper)	5,837	5,454	$18,198	$3.34
Porgy	381	381	$1,079	$2.83
Other Reeffish	2	2	$1	$0.50
Squirrelfish	2,286	2,286	$7,680	$3.36
Trumpetfish	95	95	$150	$1.59
Scorpionfish	277	269	$1,165	$4.33
Mountain bass	389	389	$1,542	$3.96
Bigeyes	460	460	$1,460	$3.17
Goatfish	5,174	5,111	$14,564	$2.85
Rudderfish	715	715	$886	$1.24
Damselfish	18	15	$30	$1.95
Hawkfish	30	30	$66	$2.20

Table D-2
January 2003 Reported Commercial Landings (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Wrasse	367	212	$603	$2.85
Parrotfish	4,794	4,794	$11,277	$2.35
Surgeon/tangs	7,671	7,671	$10,542	$1.37
Flounders	3	3	$7	$2.32
Filefish	101	101	$167	$1.64
Other Pelagic	44,672	44,672	$100,626	$2.25
Rainbow runner	173	173	$243	$1.40
Mahimahi (dolphin)	141,388	141,388	$214,165	$1.51
Barracudas	1,719	1,719	$2,192	$1.28
Wahoo	28,842	28,842	$87,564	$3.04
Misc Tunas	104	31	$33	$1.08
Skipjack tuna	62,295	62,295	$38,077	$0.61
Yellowfin tuna	305,920	305,920	$672,498	$2.20
Albacore	48,941	48,941	$83,314	$1.70
Bigeye tuna	915,969	915,969	$2,506,385	$2.74
Kawakawa	832	470	$457	$0.97
Broadbill swordfish	5,195	5,195	$14,761	$2.84
Blue marlin	6,396	6,396	$10,315	$1.61
Black marlin	189	189	$283	$1.49
Striped marlin	69,330	69,330	$92,672	$1.34
Shortnose spearfish	101,303	101,303	$33,132	$0.33
Sailfish	267	267	$526	$1.97
Spiny Lobster	763	763	$9,647	$12.64
Slipper Lobster	10	10	$86	$8.86
Crabs	1,186	1,186	$4,683	$3.95
Shrimp (saltwater)	547	547	$2,690	$4.92
Octopus	1,411	1,411	$3,899	$2.76
Squid	30	30	$81	$2.70
Limpets (saltwater)	1,238	1,238	$7,206	$5.82
Invertebrates	380	24	$89	$3.66
Algae	492	492	$3,174	$6.46
TOTAL	1,926,178	1,911,856	$4,326,271	$2.26

Table D-3
February 2003 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	406	406	$967	$2.38
Sharks	16,627	16,627	$8,450	$0.51
Bigeye scad (akule)	17,839	13,500	$30,133	$2.23
Mackerel scad	16,651	10,996	$22,997	$2.09
Leatherback	30	30	$47	$1.56
Ten pounder	59	59	$59	$1.00
Bonefish	74	74	$68	$0.91
Milkfish	15	15	$19	$1.28
Needlefish	14	6	$9	$1.50
Threadfin	90	90	$323	$3.58
Mullet	53	53	$195	$3.70
Pomfret	58,944	58,944	$70,141	$1.19
Oilfish	33,667	33,667	$33,166	$0.99
Jacks (Misc)	78	78	$138	$1.78
Amberjack	689	191	$122	$0.64
Sasa Ulua	23	23	$35	$1.50
Pig-lipped ulua	3,759	3,759	$6,913	$1.84
Dobe ulua	2,705	2	$3	$2.00
Papa ulua	306	306	$543	$1.78
White ulua	951	544	$796	$1.46
Black ulua	2,066	2,066	$3,201	$1.55
Blue crevally	469	436	$781	$1.79
Hawaiian Grouper	4,263	4,263	$18,934	$4.44
Blue spot grouper	51	21	$63	$3.00
Snappers	43	26	$68	$2.62
Blue lined snapper	2,527	564	$770	$1.37
Ehu (red snapper)	2,429	2,429	$9,230	$3.80
Gindai (flower snapper)	344	344	$898	$2.61
Golden Kalekale	1,248	1,248	$3,874	$3.11
Lehi (silverjaw)	1,420	1,420	$5,178	$3.65
Onaga (red snapper)	12,818	12,818	$67,879	$5.30
Opakapaka (pink snapper)	16,582	16,582	$85,865	$5.18
Uku (gray snapper)	12,237	11,972	$29,307	$2.45
Porgy	168	168	$195	$1.16
Squirrelfish	1,140	1,140	$3,668	$3.22
Trumpetfish	6	6	$9	$1.62
Scorpionfish	234	234	$934	$4.00
Mountain bass	317	317	$1,334	$4.22
Bigeyes	251	251	$797	$3.17
Goatfish	6,468	2,716	$7,133	$2.63
Rudderfish	1,128	1,048	$1,113	$1.06
Damselfish	62	61	$151	$2.47
Hawkfish	8	8	$22	$2.97
Tilapia	271	271	$541	$1.99

Table D-3
February 2003 Reported Commercial Landings (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Wrasse	241	225	$1,138	$5.05
Parrotfish	1,827	1,683	$4,179	$2.48
Surgeon/tangs	8,412	6,134	$10,017	$1.63
Filefish	33	5	$6	$1.25
Other Pelagic	44,711	44,711	$101,573	$2.27
Rainbow runner	130	125	$165	$1.32
Mahimahi (dolphin)	134,208	134,208	$210,286	$1.57
Barracudas	866	866	$970	$1.12
Wahoo	58,128	58,128	$127,557	$2.19
Misc Tunas	35	0	$0	$0.00
Skipjack tuna	39,091	39,091	$29,268	$0.75
Yellowfin tuna	383,958	383,958	$921,152	$2.40
Albacore	94,091	94,091	$124,447	$1.32
Bigeye tuna	868,651	868,651	$2,274,929	$2.62
Kawakawa	384	187	$194	$1.04
Other Billfish	45	0	$0	$0.00
Broadbill swordfish	8,738	8,738	$22,767	$2.61
Blue marlin	12,738	12,738	$14,059	$1.10
Black marlin	174	174	$139	$0.80
Striped marlin	98,055	98,055	$91,905	$0.94
Shortnose spearfish	88,510	88,510	$31,188	$0.35
Sailfish	249	249	$248	$1.00
Spiny Lobster	460	345	$4,186	$12.13
Crabs	1,882	1,074	$4,937	$4.60
Shrimp (saltwater)	608	112	$253	$2.27
Octopus	2,063	2,063	$5,766	$2.79
Squid	7	7	$18	$2.70
Limpets (saltwater)	784	784	$4,599	$5.87
Invertebrates	20	20	$20	$1.00
Algae	529	290	$1,978	$6.83
TOTAL	2,069,158	2,044,995	$4,405,010	$2.15

Table D-4
March 2003 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	426	426	$1,717	$4.03
Sharks	40,426	40,426	$15,431	$0.38
Bigeye scad (akule)	49,817	31,919	$60,872	$1.91
Mackerel scad	21,230	18,008	$37,839	$2.10
Leatherback	22	22	$27	$1.27
Ten pounder	4	4	$5	$1.21
Bonefish	71	43	$67	$1.55
Milkfish	113	113	$154	$1.36
Needlefish	6	0	$0	$0.00
Threadfin	4	3	$4	$1.50
Mullet	130	130	$389	$2.99
Pomfret	57,471	57,471	$68,874	$1.20
Oilfish	34,922	34,922	$42,164	$1.21
Jacks (Misc)	48	23	$65	$2.80
Amberjack	767	379	$244	$0.64
Sasa Ulua	24	8	$17	$2.00
Pig-lipped ulua	3,368	3,131	$4,483	$1.43
Dobe ulua	7,514	799	$1,063	$1.33
Papa ulua	322	134	$235	$1.75
White ulua	493	392	$574	$1.46
Black ulua	964	964	$1,379	$1.43
Blue crevally	397	375	$526	$1.40
Hawaiian Grouper	4,425	4,133	$17,004	$4.11
Blue spot grouper	121	121	$423	$3.49
Snappers	87	70	$234	$3.33
Blue lined snapper	2,194	988	$1,269	$1.28
Ehu (red snapper)	2,887	2,528	$9,352	$3.70
Gindai (flower snapper)	444	405	$1,171	$2.89
Golden Kalekale	1,726	1,517	$4,495	$2.96
Lehi (silverjaw)	2,110	1,774	$6,275	$3.54
Onaga (red snapper)	9,590	9,590	$54,459	$5.68
Opakapaka (pink snapper)	23,291	22,970	$109,052	$4.75
Uku (gray snapper)	18,620	18,620	$33,262	$1.79
Porgy	103	103	$137	$1.33
Other Reeffish	12	12	$6	$0.50
Reef jacks	27	8	$23	$3.00
Squirrelfish	2,185	2,185	$7,556	$3.46
Trumpetfish	36	36	$51	$1.42
Scorpionfish	293	248	$1,068	$4.30
Mountain bass	223	223	$1,069	$4.79
Bigeyes	264	264	$774	$2.93
Goatfish	5,730	2,162	$6,254	$2.89
Rudderfish	3,471	930	$1,495	$1.61
Damselfish	23	23	$52	$2.21

Table D-4
March 2003 Reported Commercial Landings (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Hawkfish	26	26	$73	$2.80
Wrasse	907	591	$1,955	$3.31
Parrotfish	2,539	2,539	$6,610	$2.60
Surgeon/tangs	4,927	4,927	$8,510	$1.73
Flounders	3	2	$2	$1.00
Filefish	134	134	$185	$1.38
Other Pelagic	84,962	84,962	$115,594	$1.36
Rainbow runner	278	278	$383	$1.38
Mahimahi (dolphin)	165,575	165,575	$269,445	$1.63
Barracudas	3,829	3,829	$4,114	$1.07
Wahoo	132,500	132,500	$178,870	$1.35
Misc Tunas	21,504	21,504	$56,831	$2.64
Skipjack tuna	35,952	35,952	$32,518	$0.90
Yellowfin tuna	478,686	478,686	$1,239,797	$2.59
Albacore	86,079	86,079	$131,672	$1.53
Bigeye tuna	650,610	650,610	$1,917,321	$2.95
Kawakawa	450	450	$312	$0.69
Other Billfish	668	668	$617	$0.92
Broadbill swordfish	21,622	21,622	$38,615	$1.79
Blue marlin	38,490	38,490	$29,797	$0.77
Black marlin	927	123	$135	$1.10
Striped marlin	183,102	183,102	$123,847	$0.68
Shortnose spearfish	65,216	65,216	$24,097	$0.37
Sailfish	202	202	$95	$0.47
Spiny Lobster	923	653	$7,650	$11.72
Slipper Lobster	3	3	$21	$8.50
Crabs	3,058	1,552	$7,145	$4.60
Shrimp (saltwater)	1,154	328	$1,654	$5.04
Octopus	1,822	1,822	$5,323	$2.92
Squid	51	51	$76	$1.48
Limpets (saltwater)	1,402	1,402	$6,519	$4.65
Invertebrates	630	0	$0	$0.00
Algae	601	336	$2,331	$6.94
TOTAL	2,285,233	2,242,816	$4,703,726	$2.10

Table D-5
April 2003 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	1,269	1,269	$2,341	$1.84
Sharks	31,794	31,794	$13,272	$0.42
Eels	41	41	$54	$1.32
Bigeye scad (akule)	44,062	38,975	$68,896	$1.77
Mackerel scad	29,688	25,648	$51,735	$2.02
Leatherback	13	11	$11	$1.00
Ten pounder	134	57	$64	$1.13
Bonefish	352	352	$362	$1.03
Milkfish	42	42	$53	$1.26
Needlefish	3	3	$3	$1.00
Threadfin	10	2	$11	$4.50
Mullet	2,229	2,229	$7,174	$3.22
Pomfret	31,642	31,642	$56,731	$1.79
Oilfish	21,658	21,658	$40,086	$1.85
Jacks (Misc)	225	225	$277	$1.23
Amberjack	212	212	$149	$0.70
Sasa Ulua	15	9	$21	$2.50
Pig-lipped ulua	3,424	3,108	$5,015	$1.61
Papa ulua	95	56	$110	$1.98
White ulua	2,586	2,586	$5,997	$2.32
Black ulua	56	0	$0	$0.00
Blue crevally	1,213	432	$859	$1.99
Hawaiian Grouper	8,875	6,066	$23,011	$3.79
Blue spot grouper	92	53	$151	$2.87
Snappers	257	257	$820	$3.19
Blue lined snapper	4,345	3,034	$3,463	$1.14
Ehu (red snapper)	2,089	1,724	$7,477	$4.34
Gindai (flower snapper)	435	327	$902	$2.76
Golden Kalekale	861	861	$2,885	$3.35
Lehi (silverjaw)	571	571	$1,696	$2.97
Onaga (red snapper)	9,962	8,598	$47,335	$5.51
Opakapaka (pink snapper)	10,330	8,762	$45,621	$5.21
Uku (gray snapper)	6,537	5,165	$14,382	$2.78
Porgy	920	920	$2,108	$2.29
Other Reeffish	31	31	$16	$0.50
Reef jacks	38	27	$84	$3.09
Squirrelfish	2,200	2,200	$7,795	$3.54
Trumpetfish	5	5	$4	$0.86
Scorpionfish	337	337	$1,249	$3.70
Mountain bass	40	39	$169	$4.37
Bigeyes	302	302	$874	$2.89
Goatfish	5,202	4,741	$13,618	$2.87
Rudderfish	331	331	$419	$1.26

Table D-5
April 2003 Reported Commercial Landings (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Damselfish	36	36	$56	$1.57
Tilapia	200	200	$300	$1.50
Wrasse	426	247	$1,116	$4.51
Parrotfish	11,287	11,287	$28,565	$2.53
Surgeon/tangs	12,516	12,516	$21,501	$1.72
Flounders	1	1	$2	$2.00
Filefish	804	804	$1,041	$1.29
Pufferfish	1	0	$0	$0.00
Other Pelagic	70,286	70,286	$106,400	$1.51
Rainbow runner	175	97	$124	$1.28
Mahimahi (dolphin)	158,349	158,349	$389,309	$2.46
Barracudas	2,329	2,329	$2,665	$1.14
Wahoo	89,889	89,889	$192,766	$2.14
Misc Tunas	28	2	$0	$0.10
Skipjack tuna	121,932	121,932	$81,597	$0.67
Yellowfin tuna	198,001	198,001	$526,644	$2.66
Albacore	151,648	151,648	$193,292	$1.27
Bigeye tuna	353,897	353,897	$1,056,072	$2.98
Kawakawa	403	302	$344	$1.14
Broadbill swordfish	25,720	25,720	$53,128	$2.07
Blue marlin	72,695	72,695	$73,832	$1.02
Black marlin	387	387	$429	$1.11
Striped marlin	86,805	86,805	$105,699	$1.22
Shortnose spearfish	29,806	29,806	$28,211	$0.95
Sailfish	480	480	$371	$0.77
Spiny Lobster	1,251	1,038	$13,494	$13.00
Slipper Lobster	6	6	$27	$4.95
Crabs	3,697	1,246	$4,736	$3.80
Shrimp (saltwater)	447	217	$1,254	$5.79
Octopus	1,499	1,499	$4,443	$2.96
Squid	5	5	$13	$2.50
Limpets (saltwater)	735	735	$4,444	$6.04
Invertebrates	280	2	$75	$37.50
Algae	1,028	591	$2,783	$4.71
TOTAL	1,621,597	1,597,779	$3,322,079	$2.08

Table D-6
May 2003 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	200	200	$768	$3.84
Sharks	17,467	17,467	$4,771	$0.27
Eels	21	21	$31	$1.50
Bigeye scad (akule)	87,504	87,504	$77,452	$0.89
Mackerel scad	31,700	26,081	$51,680	$1.98
Leatherback	5	4	$4	$0.93
Ten pounder	183	15	$16	$1.11
Bonefish	31	31	$36	$1.14
Milkfish	180	180	$225	$1.25
Needlefish	12	12	$18	$1.51
Threadfin	37	11	$57	$5.00
Mullet	601	601	$1,959	$3.26
Pomfret	26,118	26,118	$52,928	$2.03
Oilfish	22,827	22,827	$36,237	$1.59
Jacks (Misc)	96	96	$189	$1.97
Amberjack	355	80	$40	$0.50
Sasa Ulua	93	93	$336	$3.62
Pig-lipped ulua	2,643	2,643	$3,526	$1.33
Papa ulua	237	136	$288	$2.12
White ulua	1,053	1,053	$1,793	$1.70
Black ulua	139	69	$128	$1.86
Blue crevally	1,944	1,944	$3,863	$1.99
Hawaiian Grouper	5,615	4,258	$15,510	$3.64
Blue spot grouper	333	265	$865	$3.27
Snappers	199	199	$764	$3.84
Blue lined snapper	8,655	8,655	$8,282	$0.96
Ehu (red snapper)	2,475	2,475	$7,443	$3.01
Gindai (flower snapper)	471	420	$1,064	$2.53
Golden Kalekale	1,015	1,015	$2,810	$2.77
Lehi (silverjaw)	629	629	$1,708	$2.71
Onaga (red snapper)	7,616	7,616	$44,860	$5.89
Opakapaka (pink snapper)	10,229	8,508	$45,574	$5.36
Uku (gray snapper)	14,605	13,064	$30,140	$2.31
Porgy	469	270	$631	$2.34
Other Reeffish	141	141	$128	$0.91
Reef jacks	6	4	$11	$2.87
Squirrelfish	3,321	3,321	$11,370	$3.42
Scorpionfish	238	226	$803	$3.56
Mountain bass	79	79	$328	$4.16
Bigeyes	405	405	$1,352	$3.34
Goatfish	3,918	3,918	$10,988	$2.80
Rudderfish	1,049	1,049	$1,254	$1.20
Damselfish	86	86	$228	$2.67
Hawkfish	31	31	$81	$2.66

Table D-6
May 2003 Reported Commercial Landings (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Wrasse	378	378	$1,108	$2.94
Parrotfish	5,889	5,889	$14,498	$2.46
Surgeon/tangs	11,060	11,060	$16,111	$1.46
Filefish	294	294	$258	$0.88
Other Pelagic	94,177	94,177	$116,860	$1.24
Rainbow runner	175	175	$245	$1.40
Mahimahi (dolphin)	92,877	92,877	$259,086	$2.79
Barracudas	4,908	4,908	$4,383	$0.89
Wahoo	174,363	174,363	$192,561	$1.10
Misc Tunas	443	443	$4,917	$11.10
Skipjack tuna	148,566	148,566	$90,521	$0.61
Yellowfin tuna	410,985	410,985	$1,141,966	$2.78
Albacore	520,346	520,346	$375,766	$0.72
Bigeye tuna	296,181	296,181	$854,867	$2.89
Kawakawa	614	530	$596	$1.12
Other Billfish	807	807	$1,167	$1.45
Broadbill swordfish	78,502	78,502	$126,486	$1.61
Blue marlin	170,142	170,142	$75,113	$0.44
Black marlin	1,221	601	$212	$0.35
Striped marlin	143,381	143,381	$67,992	$0.47
Shortnose spearfish	50,003	50,003	$15,597	$0.31
Sailfish	453	453	$142	$0.31
Crabs	1,648	567	$1,932	$3.41
Shrimp (saltwater)	338	126	$891	$7.09
Octopus	1,837	1,837	$5,602	$3.05
Squid	228	228	$323	$1.42
Limpets (saltwater)	922	922	$4,587	$4.98
Invertebrates	610	78	$234	$3.00
Algae	1,234	636	$2,853	$4.49
TOTAL	2,467,613	2,453,272	$3,799,416	$1.55

Table D-7
June 2003 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	247	247	$779	$3.16
Sharks	19,226	19,226	$5,712	$0.30
Eels	78	78	$87	$1.12
Bigeye scad (akule)	70,714	35,566	$62,253	$1.75
Mackerel scad	23,508	19,252	$36,898	$1.92
Leatherback	58	58	$86	$1.48
Ten pounder	89	19	$24	$1.24
Bonefish	509	475	$477	$1.00
Milkfish	50	50	$50	$1.00
Needlefish	28	25	$32	$1.28
Mullet	541	541	$1,858	$3.43
Pomfret	42,724	42,724	$75,469	$1.77
Oilfish	16,063	16,063	$34,797	$2.17
Jacks (Misc)	309	309	$585	$1.89
Amberjack	178	178	$120	$0.68
Sasa Ulua	117	117	$275	$2.34
Pig-lipped ulua	3,419	3,099	$5,515	$1.78
Dobe ulua	1,740	3	$5	$1.75
Papa ulua	373	127	$261	$2.06
White ulua	1,482	1,348	$2,618	$1.94
Black ulua	253	253	$505	$1.99
Blue crevally	987	804	$1,600	$1.99
Hawaiian Grouper	8,312	8,312	$26,045	$3.13
Blue spot grouper	485	485	$1,570	$3.24
Snappers	325	325	$1,262	$3.88
Blue lined snapper	3,258	3,258	$3,649	$1.12
Ehu (red snapper)	2,911	2,911	$7,811	$2.68
Gindai (flower snapper)	661	661	$1,359	$2.06
Golden Kalekale	1,499	1,499	$4,751	$3.17
Lehi (silverjaw)	862	862	$2,286	$2.65
Onaga (red snapper)	10,793	10,793	$51,111	$4.74
Opakapaka (pink snapper)	12,193	12,193	$59,869	$4.91
Uku (gray snapper)	19,493	19,493	$40,410	$2.07
Porgy	329	329	$911	$2.77
Other Reeffish	27	27	$17	$0.61
Reef jacks	76	60	$210	$3.54
Squirrelfish	4,401	4,401	$15,170	$3.45
Scorpionfish	260	260	$935	$3.60
Mountain bass	185	179	$444	$2.48
Bigeyes	507	507	$1,624	$3.20
Goatfish	4,802	4,802	$10,917	$2.27
Rudderfish	1,724	1,724	$1,881	$1.09
Damselfish	86	64	$121	$1.88

Table D-7
June 2003 Reported Commercial Landings (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Hawkfish	21	21	$56	$2.70
Wrasse	450	274	$784	$2.86
Parrotfish	10,496	10,496	$25,806	$2.46
Surgeon/tangs	7,985	7,985	$12,004	$1.50
Flounders	1	1	$2	$2.00
Filefish	625	625	$511	$0.82
Other Pelagic	54,137	54,137	$91,357	$1.69
Rainbow runner	382	219	$252	$1.15
Mahimahi (dolphin)	37,293	37,293	$146,222	$3.92
Barracudas	3,603	3,603	$2,176	$0.60
Wahoo	138,528	138,528	$217,134	$1.57
Misc Tunas	347	3	$1	$0.40
Skipjack tuna	271,047	271,047	$276,548	$1.02
Yellowfin tuna	320,556	320,556	$922,569	$2.88
Albacore	170,827	170,827	$254,033	$1.49
Bigeye tuna	326,166	326,166	$1,164,880	$3.57
Kawakawa	448	329	$407	$1.24
Other Billfish	501	440	$660	$1.50
Broadbill swordfish	73,018	73,018	$176,613	$2.42
Blue marlin	155,091	155,091	$119,950	$0.77
Black marlin	417	417	$260	$0.62
Striped marlin	62,445	62,445	$62,177	$1.00
Shortnose spearfish	23,766	23,766	$23,528	$0.99
Sailfish	171	171	$149	$0.87
Crabs	944	610	$2,097	$3.44
Shrimp (saltwater)	265	11	$11	$1.00
Octopus	1,872	1,872	$5,695	$3.04
Squid	353	353	$499	$1.42
Limpets (saltwater)	712	647	$2,778	$4.29
Invertebrates	4,306	4,306	$117,999	$27.40
Algae	688	688	$4,076	$5.93
TOTAL	1,923,343	1,879,651	$4,093,592	$2.18

Table D-8
July 2003 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	306	306	$897	$2.93
Sharks	19,271	19,271	$7,431	$0.39
Eels	53	53	$59	$1.10
Bigeye scad (akule)	24,928	24,928	$33,098	$1.33
Mackerel scad	21,569	21,569	$42,374	$1.96
Leatherback	185	185	$266	$1.44
Ten pounder	156	14	$14	$1.00
Bonefish	562	555	$564	$1.02
Milkfish	166	131	$169	$1.29
Needlefish	11	5	$5	$1.00
Mullet	509	472	$1,598	$3.39
Pomfret	35,096	35,096	$66,974	$1.91
Oilfish	14,089	14,089	$35,553	$2.52
Jacks (Misc)	165	38	$107	$2.79
Amberjack	76	66	$39	$0.59
Sasa Ulua	51	36	$75	$2.09
Pig-lipped ulua	1,565	1,565	$3,176	$2.03
Dobe ulua	3	3	$4	$1.50
Papa ulua	45	44	$85	$1.96
White ulua	1,374	683	$1,199	$1.76
Black ulua	74	64	$128	$2.00
Blue crevally	630	574	$1,163	$2.02
Hawaiian Grouper	2,054	2,054	$9,393	$4.57
Blue spot grouper	60	44	$127	$2.87
Snappers	229	229	$803	$3.51
Blue lined snapper	3,096	3,096	$3,358	$1.08
Ehu (red snapper)	1,434	1,434	$5,509	$3.84
Gindai (flower snapper)	104	104	$319	$3.08
Golden Kalekale	1,251	1,251	$2,256	$1.80
Lehi (silverjaw)	165	129	$355	$2.75
Onaga (red snapper)	7,103	7,103	$39,473	$5.56
Opakapaka (pink snapper)	3,634	3,634	$19,639	$5.40
Uku (gray snapper)	12,246	12,246	$29,416	$2.40
Porgy	350	350	$901	$2.58
Other Reeffish	12	12	$6	$0.50
Reef jacks	20	18	$54	$3.03
Squirrelfish	3,708	3,708	$12,546	$3.38
Trumpetfish	4	4	$4	$1.25
Scorpionfish	285	285	$493	$1.73
Mountain bass	251	251	$796	$3.17
Bigeyes	191	191	$523	$2.74
Goatfish	2,975	2,975	$9,602	$3.23
Rudderfish	4,750	3,827	$4,016	$1.05

Table D-8
July 2003 Reported Commercial Landings (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Damselfish	78	78	$179	$2.30
Hawkfish	60	60	$130	$2.15
Tilapia	5	5	$13	$2.50
Wrasse	409	243	$791	$3.26
Parrotfish	8,176	8,176	$20,807	$2.54
Surgeon/tangs	12,653	12,653	$16,129	$1.27
Flounders	6	6	$6	$1.00
Filefish	198	198	$198	$1.00
Other Pelagic	96,625	96,625	$121,444	$1.26
Rainbow runner	875	688	$1,172	$1.70
Mahimahi (dolphin)	39,535	39,535	$146,307	$3.70
Barracudas	3,699	3,699	$2,197	$0.59
Wahoo	96,959	96,959	$209,435	$2.16
Misc Tunas	677	8	$8	$1.00
Skipjack tuna	195,983	195,983	$199,414	$1.02
Yellowfin tuna	393,649	393,649	$899,037	$2.28
Albacore	65,185	65,185	$124,389	$1.91
Bigeye tuna	703,258	703,258	$2,092,343	$2.98
Kawakawa	577	403	$354	$0.88
Other Billfish	293	293	$464	$1.58
Broadbill swordfish	46,933	46,933	$116,604	$2.48
Blue marlin	137,054	137,054	$127,325	$0.93
Black marlin	1,310	1,310	$1,891	$1.44
Striped marlin	36,319	36,319	$57,206	$1.58
Shortnose spearfish	18,488	18,488	$21,968	$1.19
Sailfish	118	118	$147	$1.24
Crabs	883	676	$2,015	$2.98
Shrimp (saltwater)	672	126	$1,188	$9.43
Octopus	2,426	2,426	$7,425	$3.06
Squid	710	710	$1,647	$2.32
Limpets (saltwater)	301	301	$1,976	$6.57
Algae	794	794	$15,258	$19.21
TOTAL	2,029,714	2,025,645	$4,524,031	$2.23

Table D-9
August 2003 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	1,237	1,237	$2,618	$2.12
Sharks	27,397	27,397	$9,683	$0.35
Eels	126	126	$140	$1.11
Bigeye scad (akule)	49,705	25,006	$40,354	$1.61
Mackerel scad	27,859	20,209	$36,944	$1.83
Leatherback	73	73	$95	$1.30
Ten pounder	24	3	$3	$1.00
Bonefish	147	121	$126	$1.04
Milkfish	220	220	$332	$1.51
Needlefish	4	4	$4	$1.00
Threadfin	3	2	$8	$4.00
Mullet	814	698	$2,383	$3.42
Pomfret	25,477	25,477	$64,178	$2.52
Oilfish	16,787	16,787	$38,656	$2.30
Jacks (Misc)	475	475	$771	$1.62
Amberjack	678	197	$122	$0.62
Sasa Ulua	33	14	$27	$1.91
Pig-lipped ulua	1,790	1,454	$3,900	$2.68
Dobe ulua	4	0	$0	$0.00
Papa ulua	99	99	$227	$2.29
White ulua	808	808	$1,521	$1.88
Black ulua	196	196	$349	$1.78
Blue crevally	424	417	$872	$2.09
Hawaiian Grouper	957	929	$4,931	$5.31
Blue spot grouper	143	29	$82	$2.81
Snappers	301	301	$1,161	$3.86
Yellow-Tail Kali	6	0	$0	$0.00
Blue lined snapper	1,531	1,309	$1,434	$1.10
Ehu (red snapper)	1,151	1,151	$5,643	$4.90
Gindai (flower snapper)	177	177	$679	$3.85
Golden Kalekale	808	808	$2,376	$2.94
Lehi (silverjaw)	443	443	$1,274	$2.87
Onaga (red snapper)	7,276	5,272	$31,117	$5.90
Opakapaka (pink snapper)	4,905	4,905	$25,574	$5.21
Uku (gray snapper)	17,551	10,666	$29,908	$2.80
Porgy	473	473	$1,183	$2.50
Other Reeffish	30	29	$15	$0.50
Reef jacks	43	41	$123	$2.98
Squirrelfish	4,255	4,255	$14,000	$3.29
Trumpetfish	2	2	$2	$1.08
Scorpionfish	237	237	$885	$3.73
Mountain bass	204	204	$934	$4.58
Bigeyes	182	182	$621	$3.41

Table D-9
August 2003 Reported Commercial Landings (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Goatfish	4,405	4,405	$14,378	$3.26
Rudderfish	2,269	2,269	$2,453	$1.08
Damselfish	119	48	$102	$2.14
Hawkfish	44	44	$112	$2.57
Tilapia	278	278	$278	$1.00
Wrasse	501	298	$1,198	$4.02
Parrotfish	7,136	7,136	$17,649	$2.47
Surgeon/tangs	16,593	14,767	$22,462	$1.52
Flounders	3	3	$5	$2.00
Filefish	158	158	$162	$1.02
Other Pelagic	164,708	164,708	$195,532	$1.19
Rainbow runner	481	481	$592	$1.23
Mahimahi (dolphin)	105,024	105,024	$309,142	$2.94
Barracudas	634	634	$806	$1.27
Wahoo	60,470	60,470	$196,574	$3.25
Misc Tunas	139	0	$0	$0.00
Skipjack tuna	152,904	152,904	$159,303	$1.04
Yellowfin tuna	265,539	265,539	$599,234	$2.26
Albacore	125,224	125,224	$145,185	$1.16
Bigeye tuna	982,477	982,477	$2,831,522	$2.88
Kawakawa	1,630	178	$206	$1.16
Broadbill swordfish	28,020	28,020	$75,025	$2.68
Blue marlin	79,855	79,855	$105,628	$1.32
Black marlin	591	0	$0	$0.00
Striped marlin	27,794	27,794	$65,087	$2.34
Shortnose spearfish	11,482	11,482	$21,176	$1.84
Sailfish	67	67	$144	$2.14
Crabs	1,512	557	$1,897	$3.40
Shrimp (saltwater)	221	104	$783	$7.53
Octopus	4,573	4,573	$13,713	$3.00
Squid	1,368	1,368	$2,229	$1.63
Limpets (saltwater)	891	891	$3,806	$4.27
Invertebrates	35	35	$105	$3.00
Algae	882	463	$2,051	$4.43
TOTAL	2,243,082	2,194,688	$5,113,790	$2.33

Table D-10
September 2003 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	211	211	$734	$3.48
Sharks	23,493	23,493	$8,701	$0.37
Eels	116	116	$116	$1.01
Bigeye scad (akule)	28,895	8,870	$20,407	$2.30
Mackerel scad	54,100	23,052	$42,496	$1.84
Leatherback	47	47	$80	$1.71
Ten pounder	99	99	$94	$0.95
Bonefish	700	700	$709	$1.01
Milkfish	204	204	$255	$1.25
Needlefish	10	10	$15	$1.57
Threadfin	96	96	$128	$1.33
Mullet	1,149	1,135	$4,030	$3.55
Pomfret	31,292	31,292	$58,572	$1.87
Oilfish	10,883	10,883	$24,734	$2.27
Jacks (Misc)	392	392	$927	$2.36
Amberjack	365	158	$148	$0.94
Sasa Ulua	20	0	$0	$0.00
Pig-lipped ulua	1,584	1,584	$3,602	$2.27
Dobe ulua	9	9	$18	$2.00
Papa ulua	184	141	$367	$2.60
White ulua	1,037	1,037	$1,426	$1.38
Black ulua	509	80	$139	$1.75
Blue crevally	434	434	$784	$1.80
Hawaiian Grouper	2,042	2,042	$9,982	$4.89
Blue spot grouper	63	40	$120	$3.00
Snappers	397	397	$872	$2.20
Blue lined snapper	3,452	3,452	$4,103	$1.19
Ehu (red snapper)	1,664	1,664	$6,616	$3.98
Gindai (flower snapper)	220	220	$825	$3.76
Golden Kalekale	1,346	1,346	$4,313	$3.20
Lehi (silverjaw)	662	621	$1,899	$3.06
Onaga (red snapper)	18,387	18,387	$91,559	$4.98
Opakapaka (pink snapper)	6,948	6,948	$35,269	$5.08
Uku (gray snapper)	20,491	20,491	$48,726	$2.38
Porgy	323	323	$819	$2.54
Other Reeffish	17	17	$8	$0.50
Reef jacks	49	16	$48	$2.97
Squirrelfish	8,517	8,517	$26,876	$3.16
Trumpetfish	7	0	$0	$0.00
Scorpionfish	379	379	$1,484	$3.91
Mountain bass	417	417	$1,450	$3.48
Bigeyes	1,385	1,385	$4,127	$2.98
Goatfish	3,052	3,002	$9,348	$3.11

Table D-10
September 2003 Reported Commercial Landings (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Rudderfish	2,370	2,370	$2,641	$1.11
Damselfish	108	108	$240	$2.21
Hawkfish	67	67	$148	$2.23
Wrasse	738	534	$2,014	$3.77
Parrotfish	5,407	5,407	$13,500	$2.50
Surgeon/tangs	13,393	13,393	$18,545	$1.38
Flounders	9	9	$14	$1.55
Filefish	48	48	$58	$1.19
Other Pelagic	130,275	130,275	$157,921	$1.21
Rainbow runner	1,073	1,073	$1,600	$1.49
Mahimahi (dolphin)	141,017	141,017	$257,086	$1.82
Barracudas	311	311	$415	$1.34
Wahoo	53,789	53,789	$147,487	$2.74
Misc Tunas	102	102	$337	$3.30
Skipjack tuna	89,051	88,618	$129,266	$1.46
Yellowfin tuna	180,939	180,939	$499,586	$2.76
Albacore	45,081	45,081	$66,491	$1.47
Bigeye tuna	525,244	525,244	$2,141,736	$4.08
Kawakawa	489	289	$346	$1.20
Broadbill swordfish	6,857	6,857	$16,765	$2.44
Blue marlin	68,421	68,421	$81,459	$1.19
Black marlin	123	123	$234	$1.90
Striped marlin	67,407	67,407	$97,680	$1.45
Shortnose spearfish	17,297	17,297	$21,251	$1.23
Sailfish	251	251	$200	$0.80
Spiny Lobster	1,271	834	$8,594	$10.31
Slipper Lobster	2	2	$14	$7.00
Crabs	4,691	4,045	$15,582	$3.85
Shrimp (saltwater)	519	50	$450	$9.00
Octopus	3,470	3,470	$9,272	$2.67
Squid	389	294	$397	$1.35
Limpets (saltwater)	1,502	1,502	$10,132	$6.75
Invertebrates	1,200	0	$0	$0.00
Algae	2,077	637	$2,443	$3.84
TOTAL	1,590,635	1,533,566	$4,120,827	$2.69

Table D-11
October 2003 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	235	235	$750	$3.20
Sharks	16,343	16,343	$7,283	$0.45
Eels	183	183	$194	$1.06
Bigeye scad (akule)	14,177	11,888	$26,933	$2.27
Mackerel scad	41,542	32,123	$57,156	$1.78
Leatherback	74	74	$93	$1.25
Ten pounder	33	33	$74	$2.24
Bonefish	41	41	$40	$0.98
Herring/sardine	2	0	$0	$0.00
Milkfish	26	26	$30	$1.16
Needlefish	8	8	$9	$1.08
Threadfin	13	10	$33	$3.34
Mullet	1,659	1,659	$5,516	$3.33
Pomfret	49,902	49,902	$77,484	$1.55
Oilfish	15,111	15,111	$30,526	$2.02
Jacks (Misc)	206	206	$705	$3.42
Amberjack	441	72	$36	$0.50
Sasa Ulua	100	16	$28	$1.75
Pig-lipped ulua	1,103	1,001	$2,576	$2.57
Dobe ulua	397	397	$879	$2.22
Papa ulua	593	261	$521	$2.00
White ulua	1,621	1,614	$2,131	$1.32
Black ulua	59	3	$5	$1.55
Blue crevally	667	667	$1,244	$1.86
Hawaiian Grouper	4,282	4,282	$16,844	$3.93
Blue spot grouper	48	23	$63	$2.72
Snappers	197	197	$690	$3.50
Yellow-Tail Kali	2	0	$0	$0.00
Blue lined snapper	2,979	2,413	$2,845	$1.18
Ehu (red snapper)	3,147	3,147	$11,571	$3.68
Gindai (flower snapper)	619	619	$2,015	$3.26
Golden Kalekale	1,721	1,721	$5,392	$3.13
Lehi (silverjaw)	806	806	$2,080	$2.58
Onaga (red snapper)	13,608	13,608	$70,884	$5.21
Opakapaka (pink snapper)	15,265	15,265	$73,779	$4.83
Uku (gray snapper)	11,414	11,414	$30,950	$2.71
Porgy	582	582	$1,439	$2.47
Other Reeffish	7	7	$5	$0.72
Reef jacks	17	17	$51	$3.04
Squirrelfish	8,353	8,353	$25,189	$3.02
Trumpetfish	5	5	$6	$1.39
Scorpionfish	389	389	$1,616	$4.15
Goatfish	3,383	3,383	$11,105	$3.28

Table D-11
October 2003 Reported Commercial Landings (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Rudderfish	2,450	2,450	$2,588	$1.06
Damselfish	104	104	$255	$2.45
Hawkfish	33	33	$74	$2.22
Tilapia	35	35	$88	$2.50
Wrasse	801	621	$3,365	$5.42
Parrotfish	4,518	4,518	$11,594	$2.57
Surgeon/tangs	8,557	8,557	$12,972	$1.52
Flounders	13	13	$19	$1.48
Filefish	42	42	$43	$1.01
Other Pelagic	130,921	130,921	$143,394	$1.10
Rainbow runner	1,071	1,034	$1,999	$1.93
Mahimahi (dolphin)	101,148	101,148	$270,101	$2.67
Barracudas	305	305	$450	$1.48
Wahoo	49,099	49,099	$139,348	$2.84
Misc Tunas	47	6	$9	$1.50
Skipjack tuna	143,045	143,045	$171,970	$1.20
Yellowfin tuna	129,157	129,157	$352,446	$2.73
Albacore	11,742	11,742	$22,706	$1.93
Bigeye tuna	658,819	658,819	$2,408,208	$3.66
Kawakawa	706	706	$592	$0.84
Broadbill swordfish	14,054	14,054	$25,947	$1.85
Blue marlin	72,742	72,742	$70,801	$0.97
Black marlin	180	165	$377	$2.28
Striped marlin	111,207	111,207	$111,629	$1.00
Shortnose spearfish	17,148	17,148	$16,240	$0.95
Sailfish	294	294	$282	$0.96
Spiny Lobster	1,228	1,228	$14,474	$11.78
Slipper Lobster	15	15	$125	$8.50
Crabs	2,942	1,665	$5,978	$3.59
Shrimp (saltwater)	192	0	$0	$0.00
Octopus	1,799	1,628	$4,284	$2.63
Squid	200	200	$297	$1.48
Limpets (saltwater)	963	963	$11,181	$11.61
Algae	683	499	$1,814	$3.64
Mountain bass	74	74	$255	$3.43
Bigeyes	521	521	$1,535	$2.94
TOTAL	1,678,215	1,662,860	$4,278,207	$2.57

Table D-12
November 2003 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	122	122	$479	$3.93
Sharks	26,180	26,180	$7,998	$0.31
Eels	55	55	$72	$1.30
Bigeye scad (akule)	19,376	19,376	$34,015	$1.76
Mackerel scad	29,348	22,238	$42,617	$1.92
Leatherback	10	7	$14	$1.93
Ten pounder	209	209	$242	$1.16
Bonefish	763	763	$782	$1.02
Milkfish	109	79	$103	$1.31
Needlefish	24	17	$32	$1.88
Threadfin	15	15	$78	$5.17
Mullet	1,858	1,619	$5,413	$3.34
Pomfret	36,824	36,824	$55,169	$1.50
Oilfish	24,801	24,801	$24,870	$1.00
Jacks (Misc)	40	39	$127	$3.31
Amberjack	627	55	$28	$0.50
Sasa Ulua	19	0	$0	$0.00
Pig-lipped ulua	1,688	1,583	$4,061	$2.57
Dobe ulua	1,088	1,088	$2,189	$2.01
Papa ulua	229	164	$452	$2.75
White ulua	546	356	$577	$1.62
Black ulua	34	18	$35	$2.00
Blue crevally	365	341	$699	$2.05
Hawaiian Grouper	4,181	4,181	$15,583	$3.73
Blue spot grouper	68	3	$6	$2.00
Snappers	848	848	$1,256	$1.48
Blue lined snapper	3,258	1,585	$1,736	$1.10
Ehu (red snapper)	2,907	2,907	$9,993	$3.44
Gindai (flower snapper)	662	662	$1,616	$2.44
Golden Kalekale	627	627	$1,900	$3.03
Lehi (silverjaw)	251	251	$794	$3.17
Onaga (red snapper)	10,192	10,192	$55,180	$5.41
Opakapaka (pink snapper)	6,407	6,407	$33,584	$5.24
Uku (gray snapper)	7,870	7,870	$23,235	$2.95
Porgy	276	209	$452	$2.16
Other Reeffish	11	11	$5	$0.50
Reef jacks	15	9	$28	$3.00
Squirrelfish	3,746	3,746	$13,226	$3.53
Trumpetfish	6	6	$8	$1.34
Scorpionfish	205	205	$790	$3.85
Mountain bass	492	492	$1,791	$3.64
Bigeyes	981	981	$3,140	$3.20
Goatfish	5,472	5,472	$13,578	$2.48

Table D-12
November 2003 Reported Commercial Landings (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Rudderfish	2,129	2,129	$2,223	$1.04
Damselfish	82	82	$168	$2.05
Hawkfish	2	2	$4	$2.00
Tilapia	130	0	$0	$0.00
Wrasse	357	328	$1,595	$4.86
Parrotfish	3,283	3,283	$8,548	$2.60
Surgeon/tangs	5,504	5,504	$7,883	$1.43
Flounders	2	2	$2	$1.00
Filefish	26	26	$37	$1.46
Other Pelagic	95,610	95,610	$119,248	$1.25
Rainbow runner	414	414	$729	$1.76
Mahimahi (dolphin)	97,422	97,422	$216,721	$2.22
Barracudas	623	623	$1,000	$1.61
Wahoo	27,653	27,653	$69,040	$2.50
Misc Tunas	15	5	$9	$1.75
Skipjack tuna	28,566	28,566	$47,449	$1.66
Yellowfin tuna	126,847	126,847	$281,781	$2.22
Albacore	850	850	$2,145	$2.52
Bigeye tuna	811,618	811,618	$2,541,577	$3.13
Kawakawa	682	236	$335	$1.42
Broadbill swordfish	9,032	9,032	$21,638	$2.40
Blue marlin	76,023	76,023	$57,887	$0.76
Black marlin	612	379	$183	$0.48
Striped marlin	206,195	206,195	$123,584	$0.60
Shortnose spearfish	25,902	25,902	$13,794	$0.53
Sailfish	581	581	$225	$0.39
Spiny Lobster	260	82	$875	$10.68
Crabs	2,031	1,205	$4,431	$3.68
Shrimp (saltwater)	526	0	$0	$0.00
Octopus	1,451	1,451	$4,040	$2.79
Squid	45	45	$68	$1.50
Limpets (saltwater)	1,000	1,000	$5,126	$5.12
Invertebrates	76	76	$268	$3.50
Algae	455	409	$1,366	$3.34
TOTAL	1,718,809	1,706,190	$3,891,926	$2.28

Table D-13
December 2003 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	334	334	$745	$2.23
Sharks	27,616	27,616	$6,218	$0.23
Eels	223	223	$230	$1.03
Bigeye scad (akule)	17,689	17,689	$33,115	$1.87
Mackerel scad	17,085	12,768	$24,323	$1.91
Leatherback	17	17	$30	$1.76
Ten pounder	16	16	$13	$0.83
Bonefish	47	47	$47	$1.01
Milkfish	29	29	$68	$2.38
Needlefish	30	16	$27	$1.68
Threadfin	3	3	$5	$2.00
Mullet	53	53	$236	$4.44
Pomfret	35,503	35,503	$70,642	$1.99
Oilfish	40,951	40,951	$40,083	$0.98
Jacks (Misc)	84	26	$57	$2.19
Amberjack	208	76	$38	$0.50
Sasa Ulua	11	4	$9	$2.47
Pig-lipped ulua	1,661	1,624	$4,624	$2.85
Dobe ulua	2,401	1,606	$2,726	$1.70
Papa ulua	395	115	$423	$3.68
White ulua	839	839	$1,677	$2.00
Black ulua	78	42	$98	$2.36
Blue crevally	274	274	$654	$2.39
Hawaiian Grouper	3,738	3,738	$17,509	$4.68
Blue spot grouper	71	7	$18	$2.50
Snappers	90	90	$340	$3.80
Blue lined snapper	3,167	1,607	$2,010	$1.25
Ehu (red snapper)	3,190	3,190	$17,298	$5.42
Gindai (flower snapper)	569	543	$1,970	$3.63
Golden Kalekale	1,155	1,155	$4,035	$3.49
Lehi (silverjaw)	673	673	$2,180	$3.24
Onaga (red snapper)	18,010	18,010	$119,286	$6.62
Opakapaka (pink snapper)	14,687	14,687	$88,795	$6.05
Uku (gray snapper)	5,779	5,779	$17,797	$3.08
Porgy	362	362	$578	$1.60
Other Reeffish	5	5	$2	$0.50
Reef jacks	2	2	$6	$3.00
Squirrelfish	2,488	2,488	$8,065	$3.24
Trumpetfish	8	8	$9	$1.09
Scorpionfish	462	462	$2,272	$4.91
Mountain bass	600	600	$2,794	$4.66
Bigeyes	592	592	$1,917	$3.24
Goatfish	6,302	5,754	$13,643	$2.37

Table D-13
December 2003 Reported Commercial Landings (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Rudderfish	1,286	1,286	$1,532	$1.19
Damselfish	197	174	$392	$2.25
Hawkfish	12	12	$29	$2.45
Tilapia	100	100	$200	$2.00
Wrasse	559	411	$1,777	$4.32
Parrotfish	2,235	2,235	$5,737	$2.57
Surgeon/tangs	7,072	7,072	$10,150	$1.44
Flounders	16	16	$31	$2.00
Filefish	96	96	$136	$1.42
Other Pelagic	84,233	84,233	$139,455	$1.66
Rainbow runner	402	103	$116	$1.13
Mahimahi (dolphin)	98,975	98,975	$226,219	$2.29
Barracudas	1,162	1,162	$1,540	$1.33
Wahoo	71,549	71,549	$145,745	$2.04
Misc Tunas	10	0	$0	$0.00
Skipjack tuna	43,279	43,279	$76,156	$1.76
Yellowfin tuna	228,230	228,230	$579,297	$2.54
Albacore	21,319	21,319	$37,828	$1.77
Bigeye tuna	1,166,127	1,166,127	$3,989,724	$3.42
Kawakawa	742	223	$447	$2.00
Broadbill swordfish	12,899	12,899	$33,092	$2.57
Blue marlin	63,129	63,129	$57,257	$0.91
Black marlin	201	201	$232	$1.15
Striped marlin	278,213	278,213	$155,789	$0.56
Shortnose spearfish	68,014	68,014	$14,949	$0.22
Sailfish	360	360	$148	$0.41
Spiny Lobster	797	615	$7,751	$12.61
Crabs	1,457	1,258	$5,004	$3.98
Shrimp (saltwater)	361	0	$0	$0.00
Octopus	956	956	$2,588	$2.71
Limpets (saltwater)	1,133	1,133	$5,304	$4.68
Invertebrates	133	133	$399	$3.00
Algae	316	316	$1,639	$5.19
TOTAL	2,363,067	2,353,444	$5,987,278	$2.54

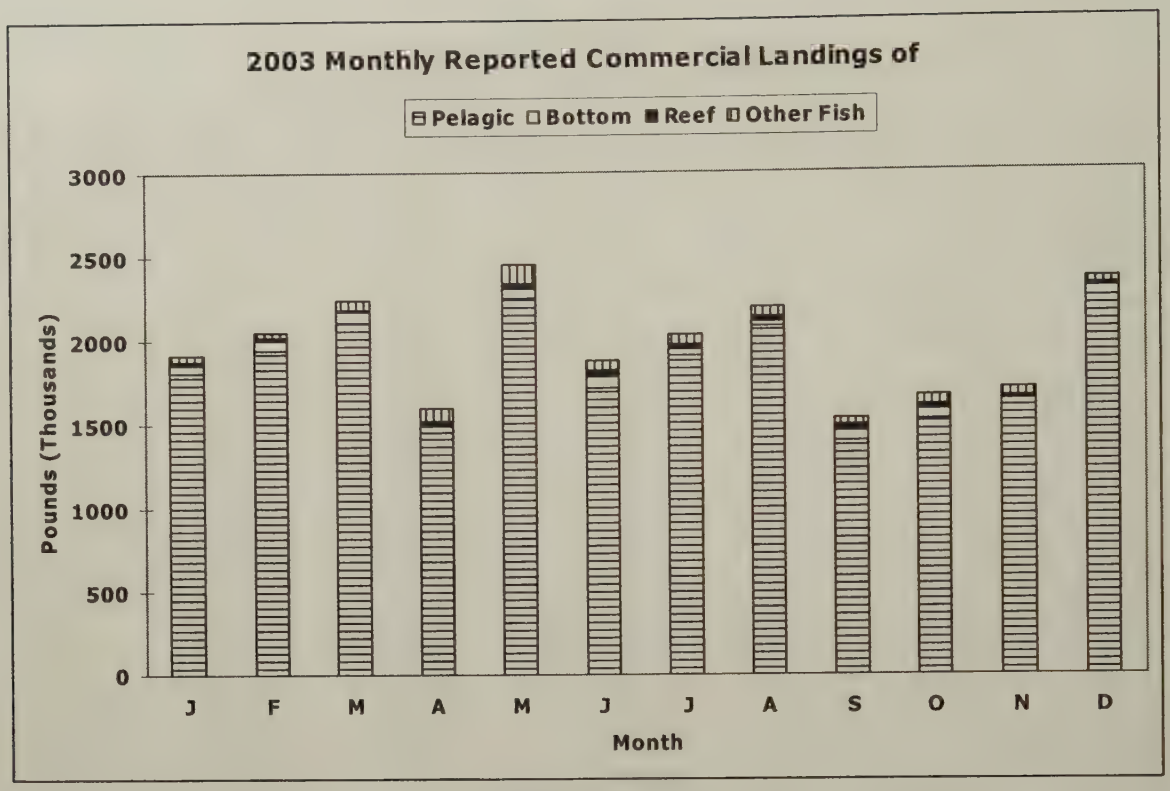


Figure D-1-1

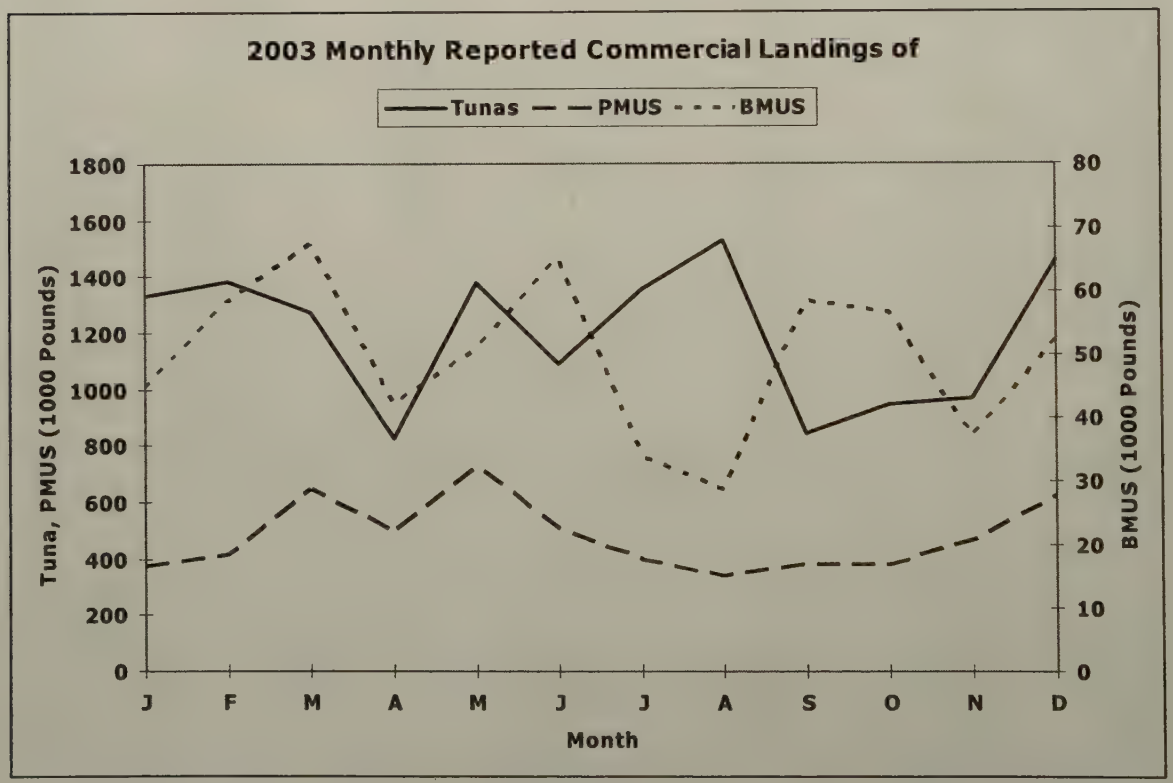


Figure D-1-2

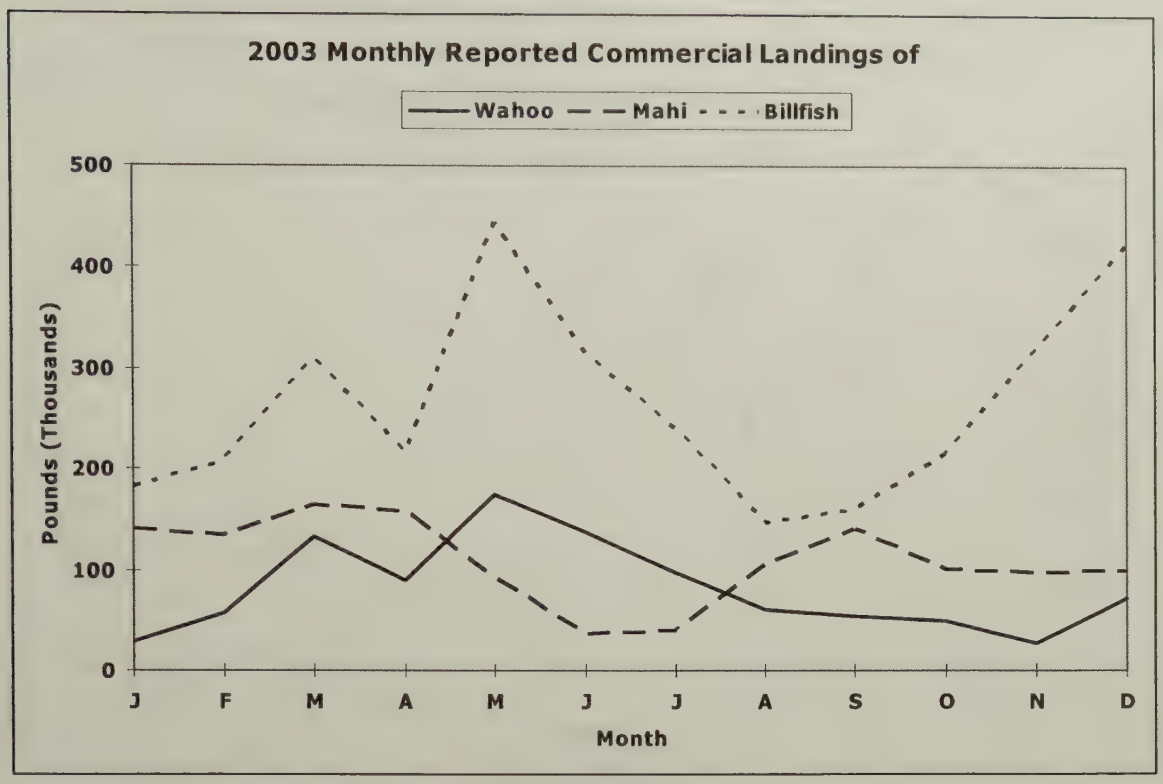


Figure D-1-3

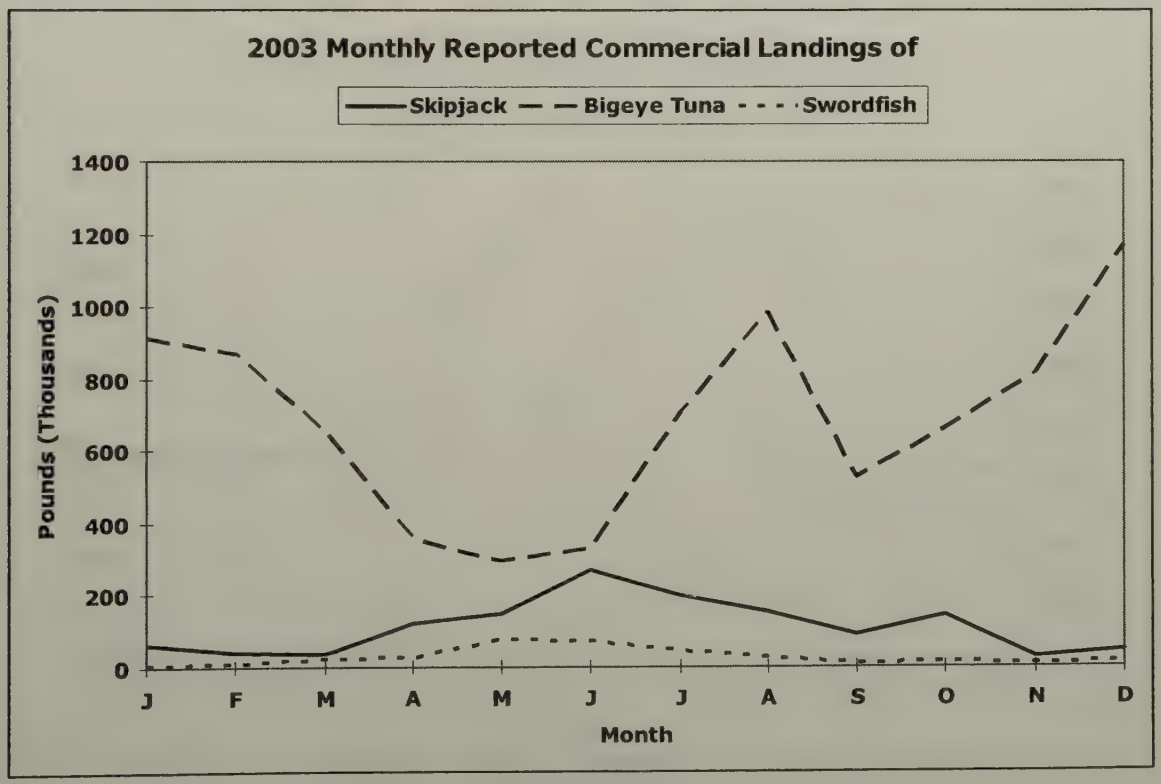


Figure D-1-4

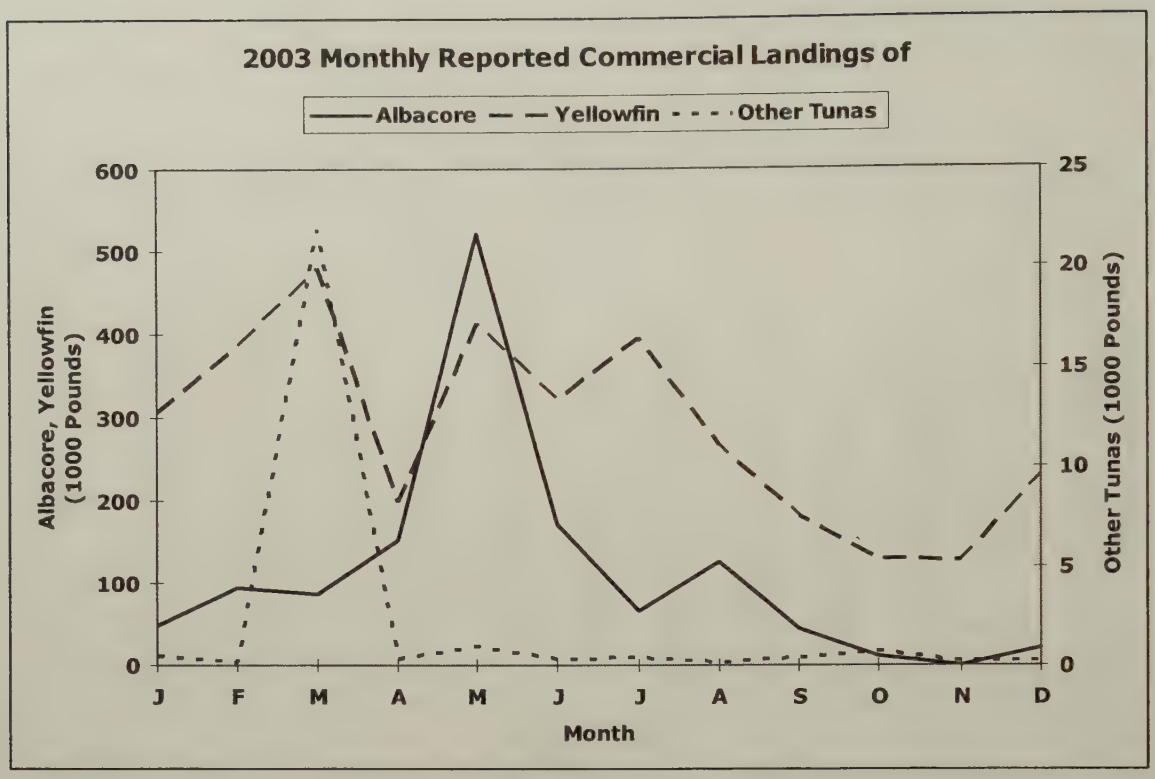


Figure D-1-5

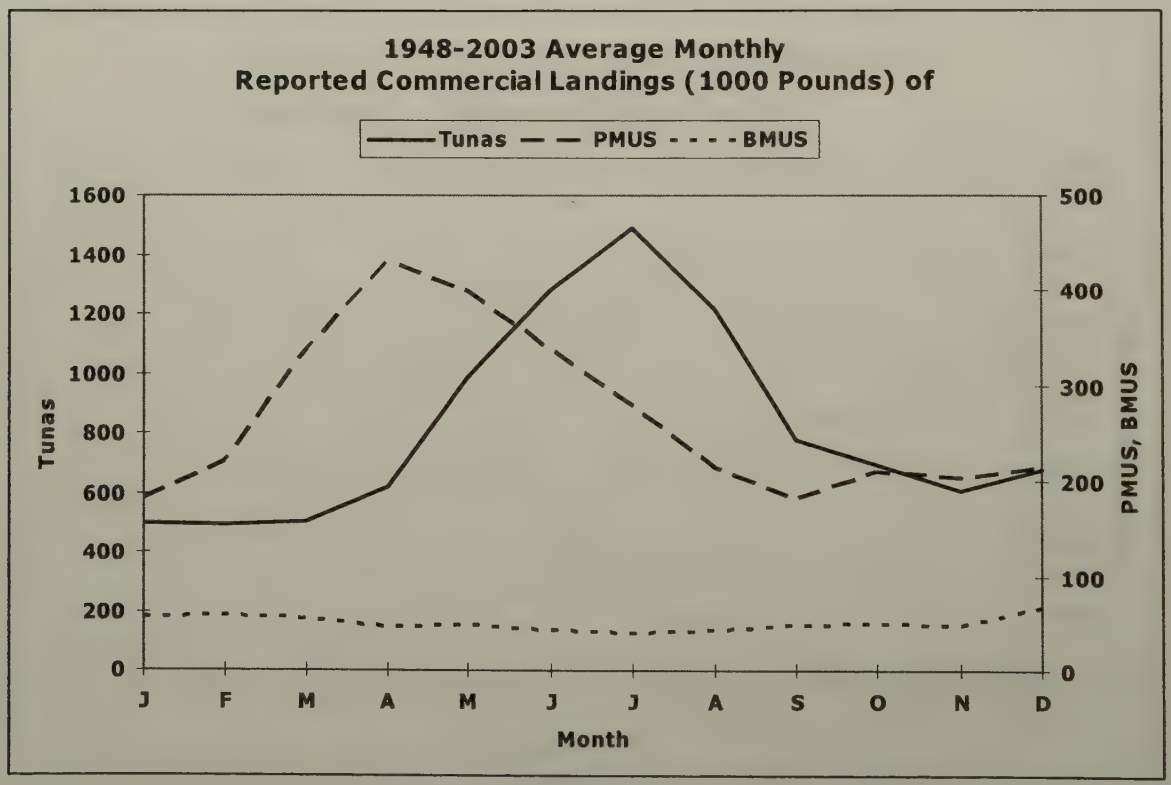


Figure D-2-1

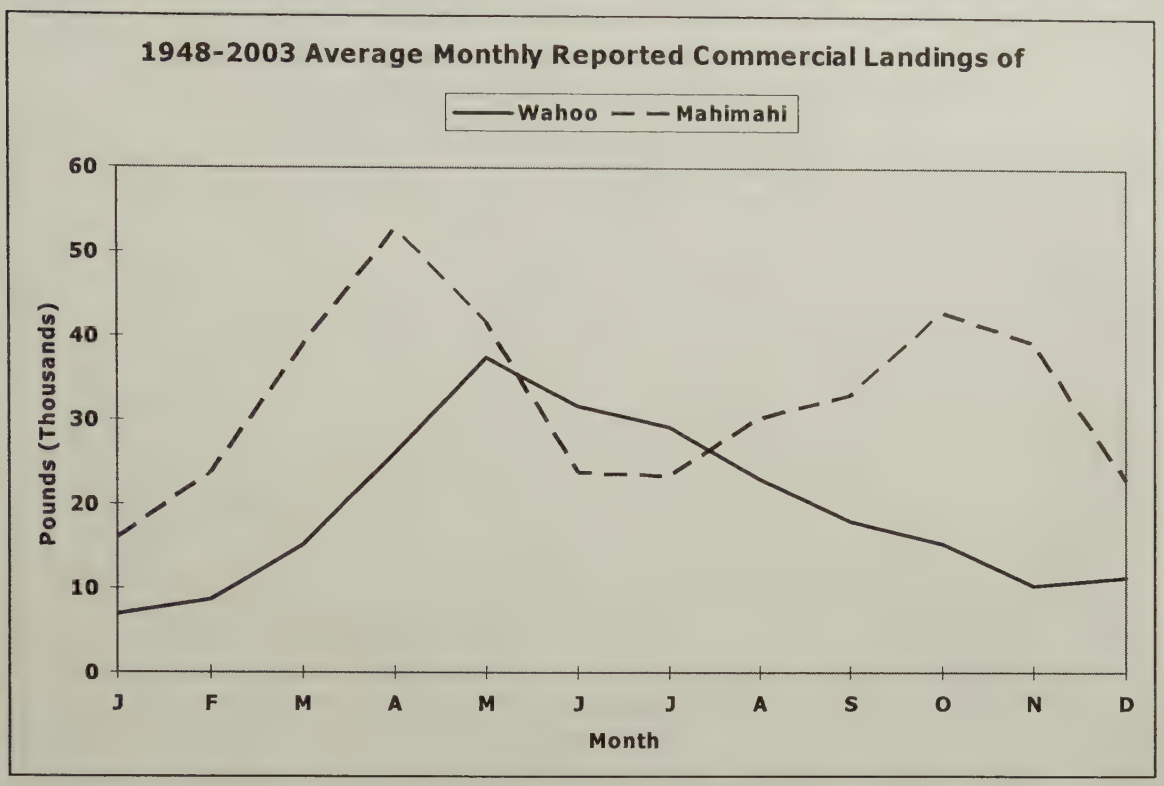


Figure D-2-2

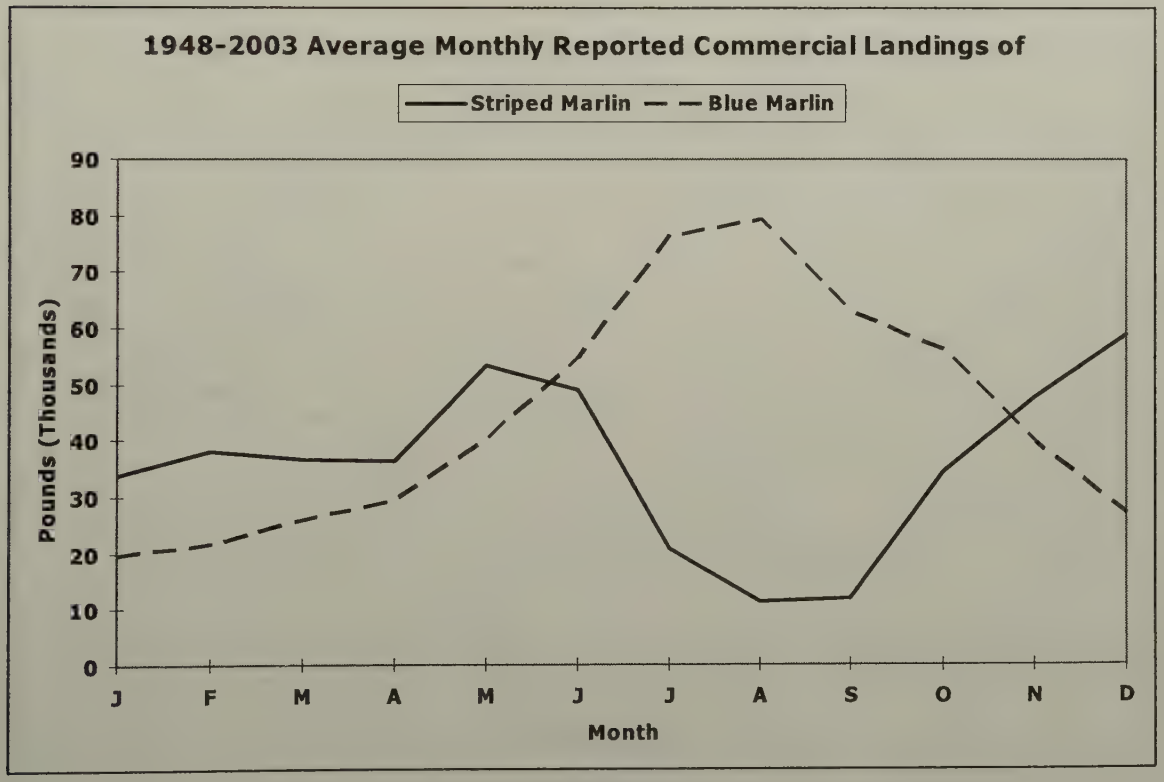


Figure D-2-3

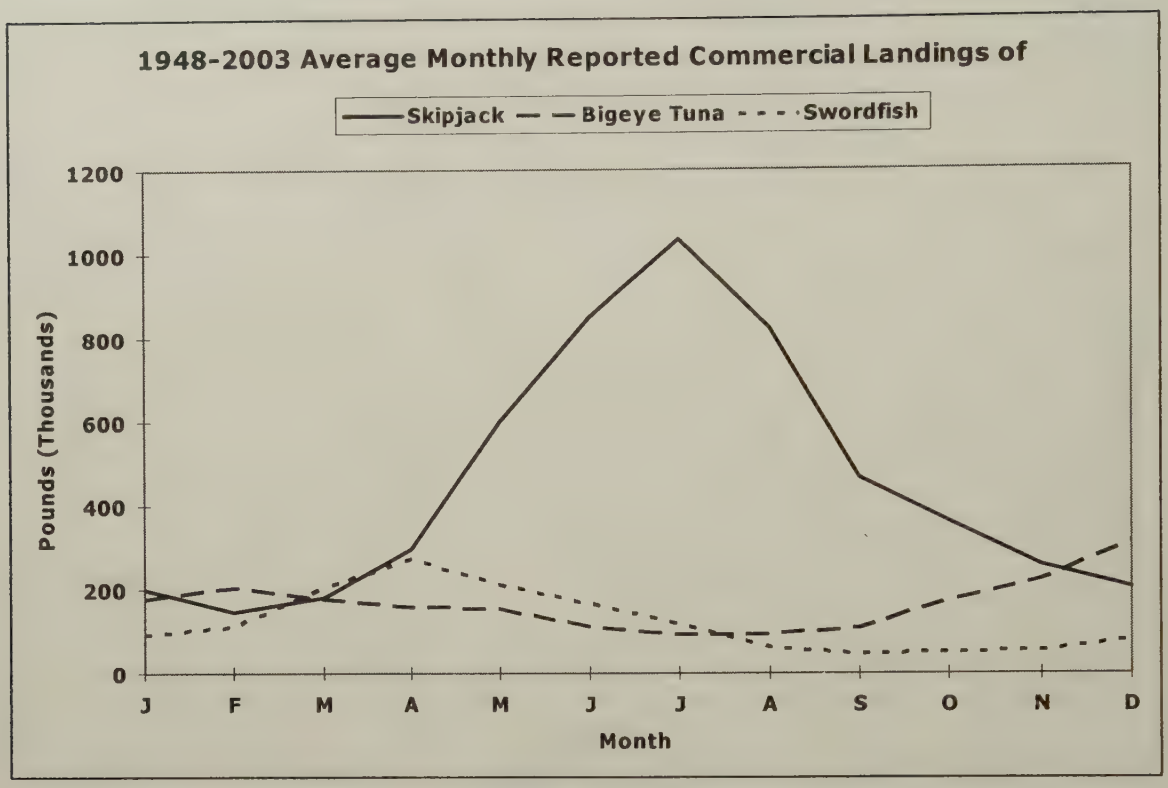


Figure D-2-4

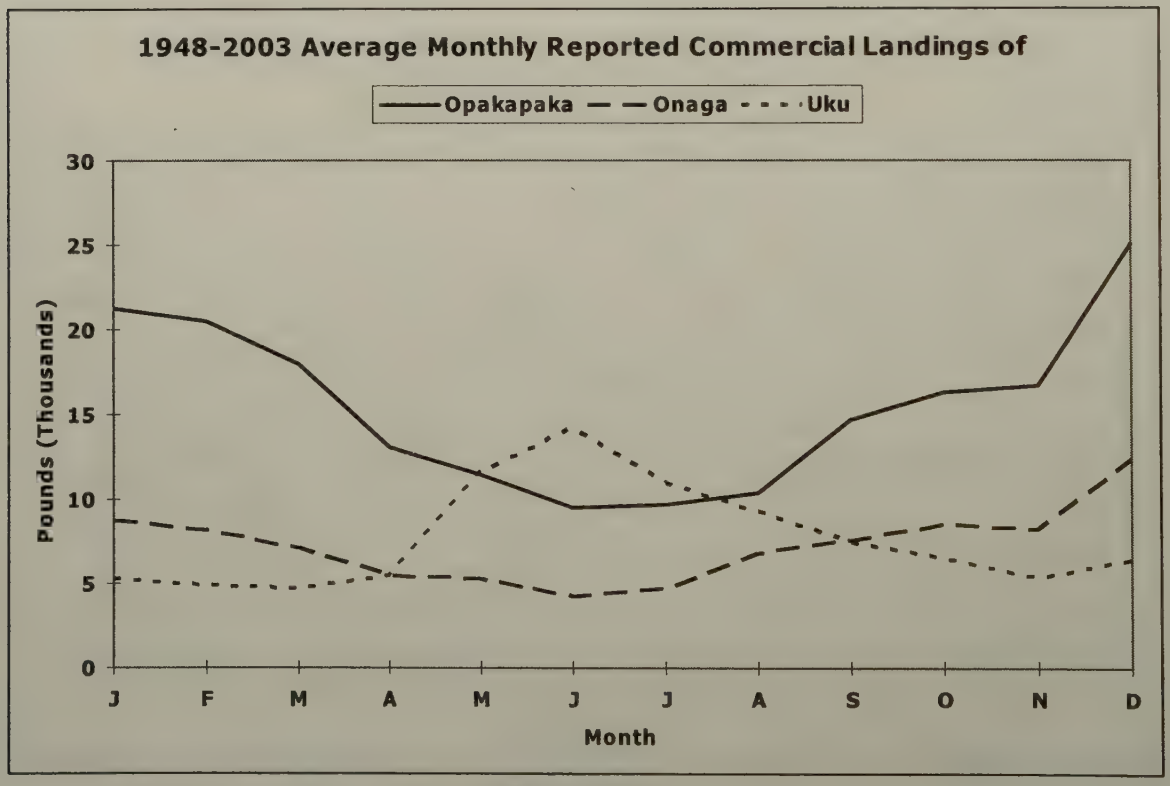


Figure D-2-5

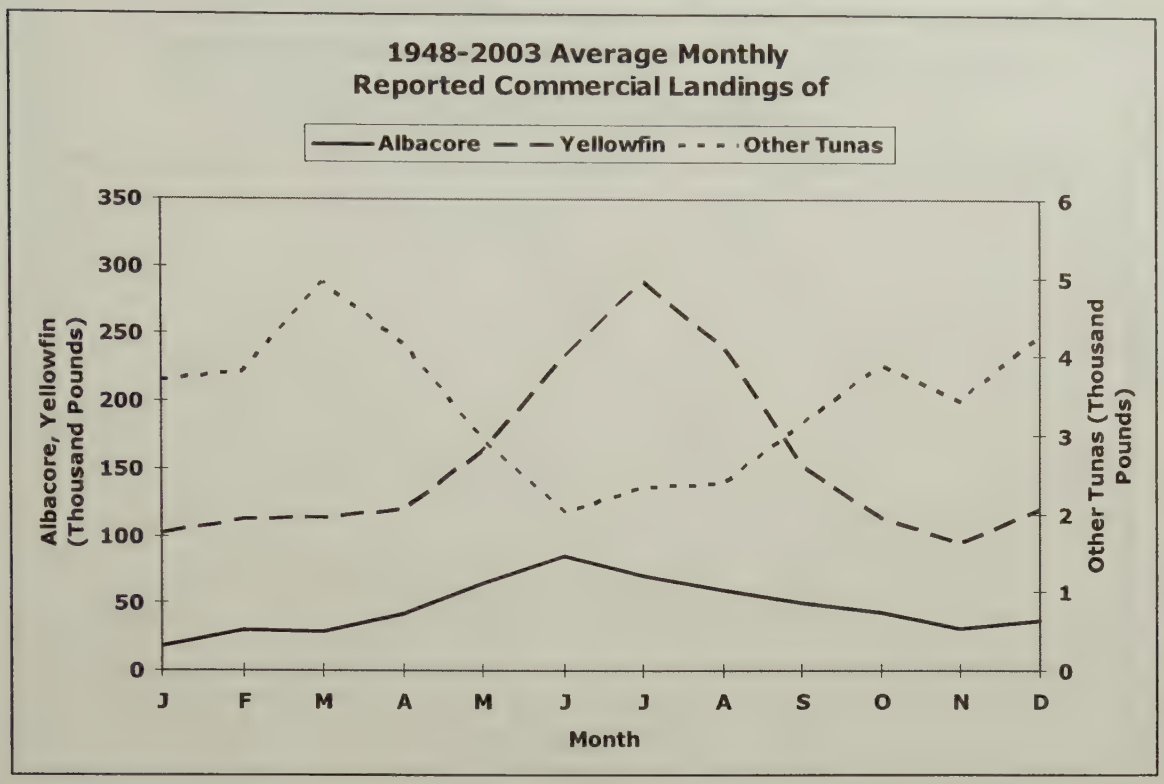


Figure D-2-6

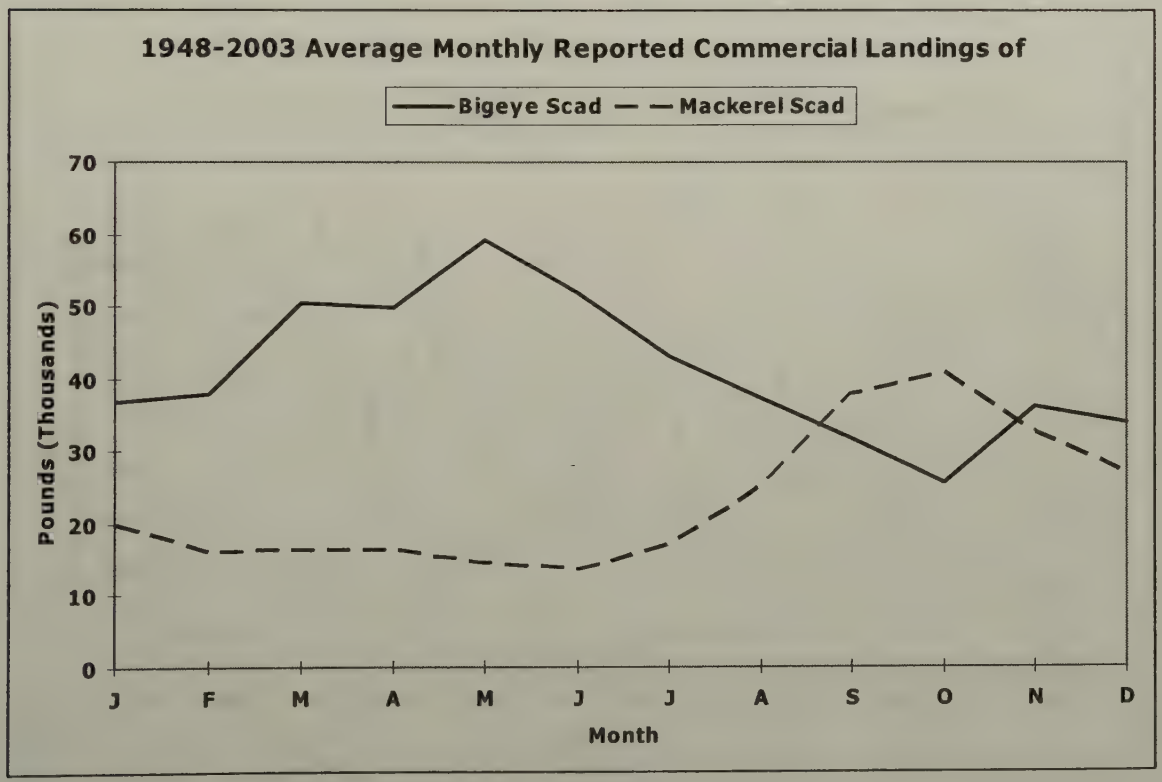


Figure D-2-7

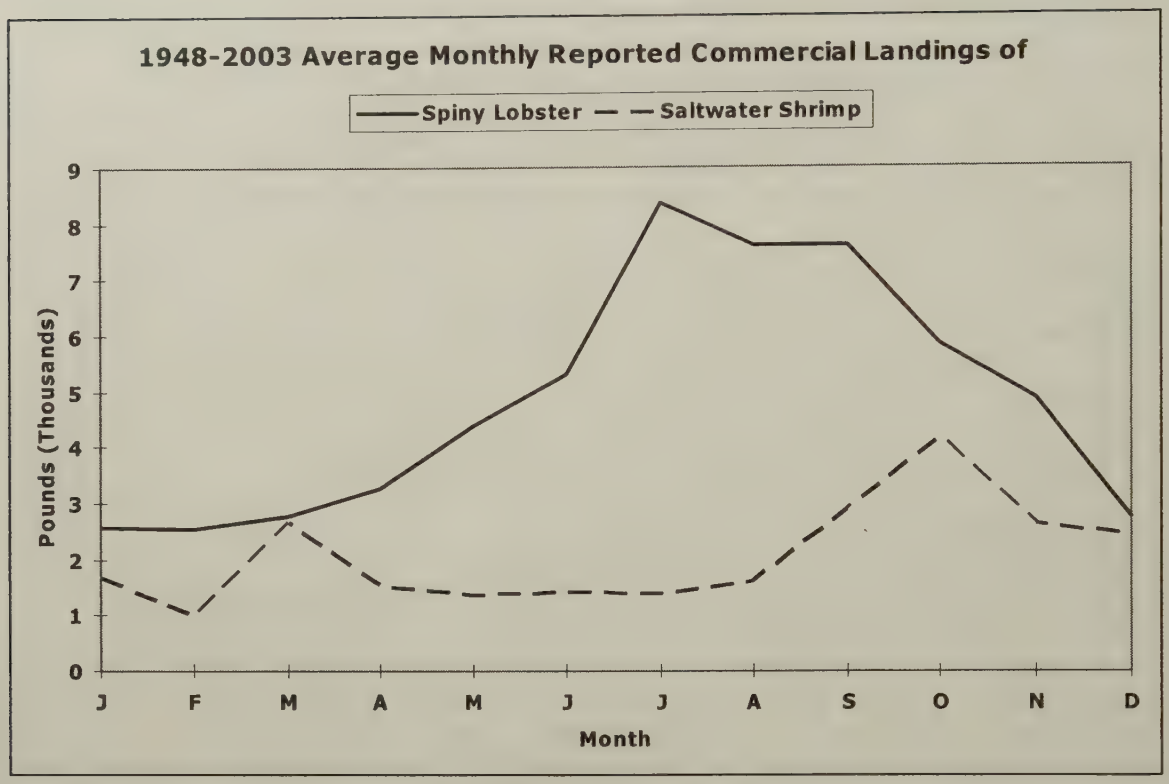


Figure D-2-8

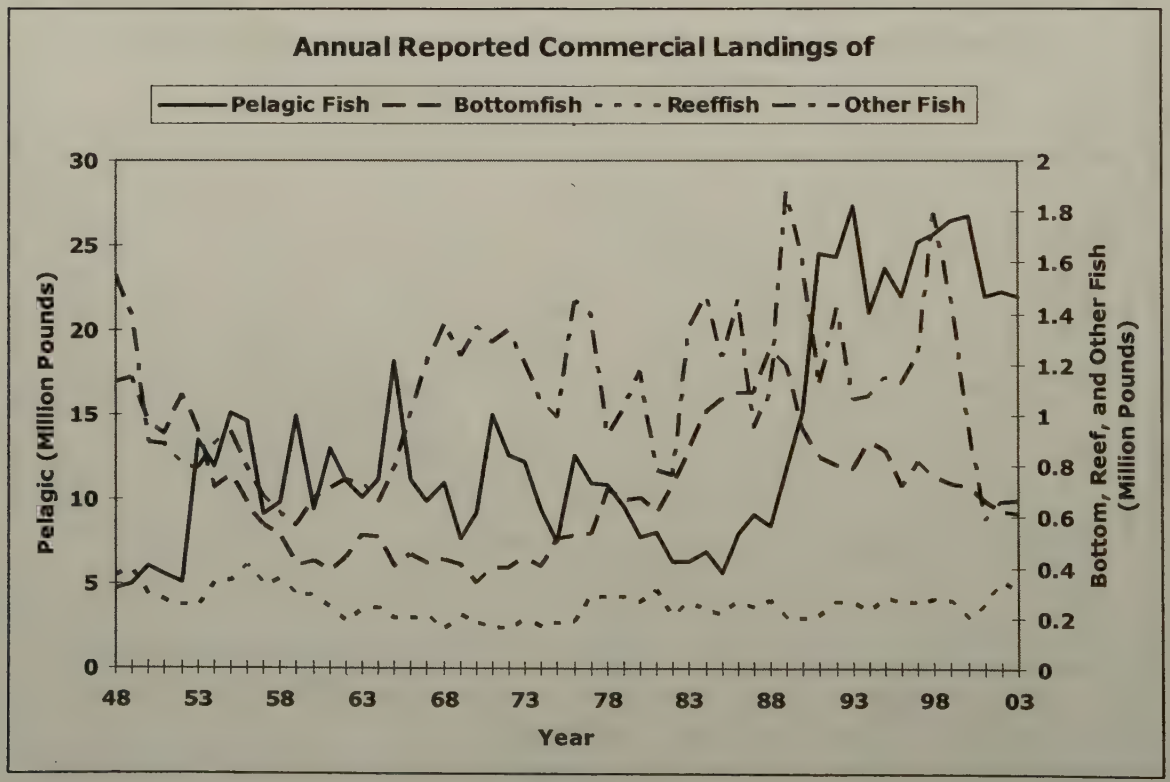


Figure D-3-1

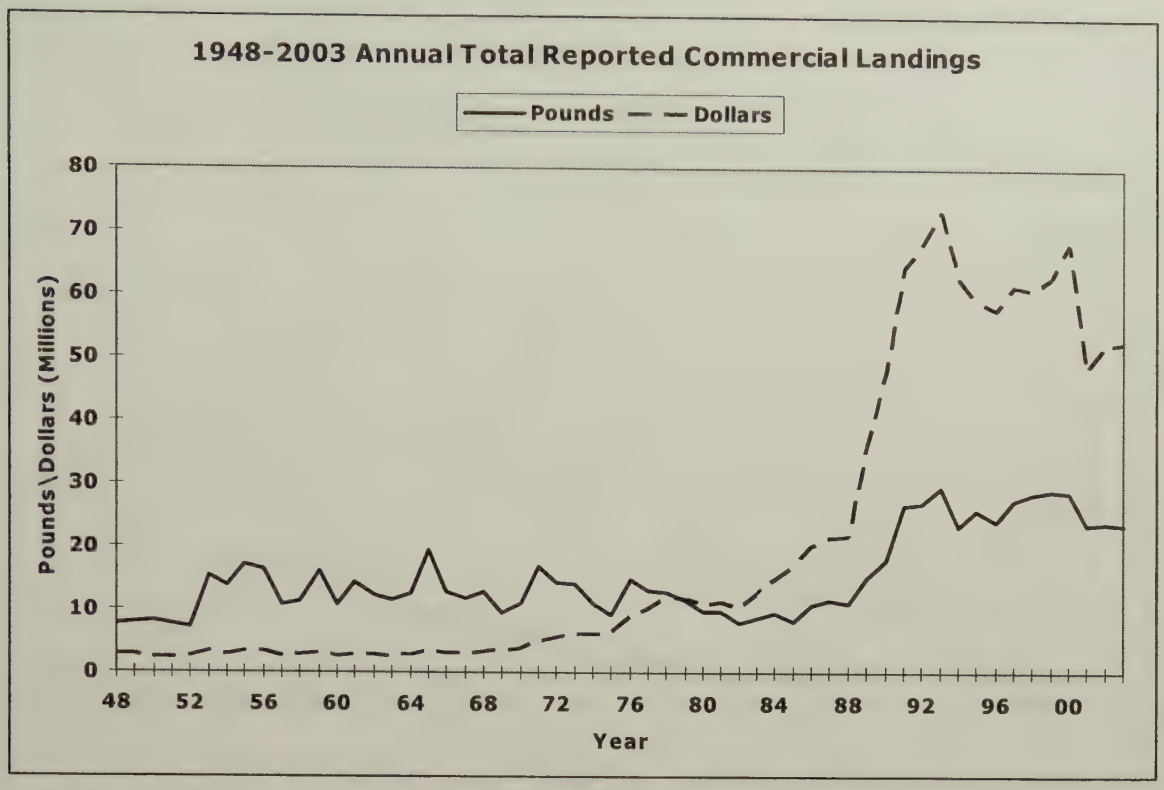


Figure D-3-2

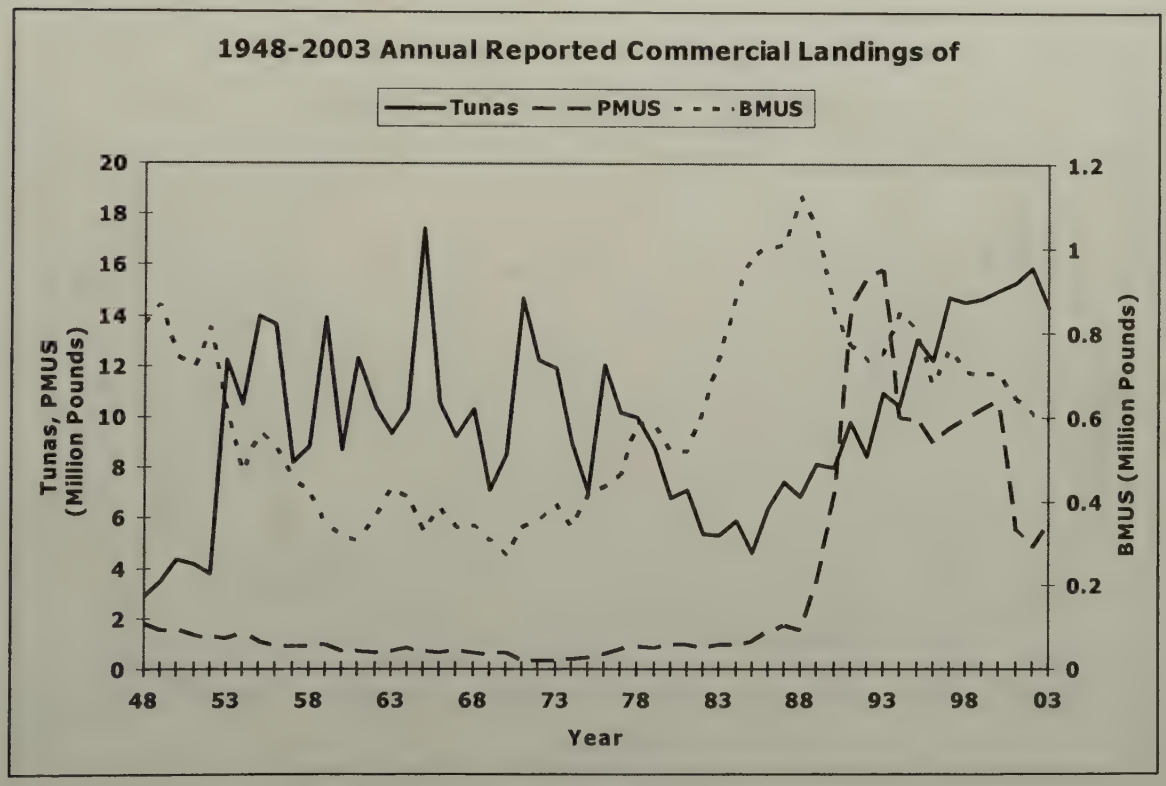


Figure D-3-3

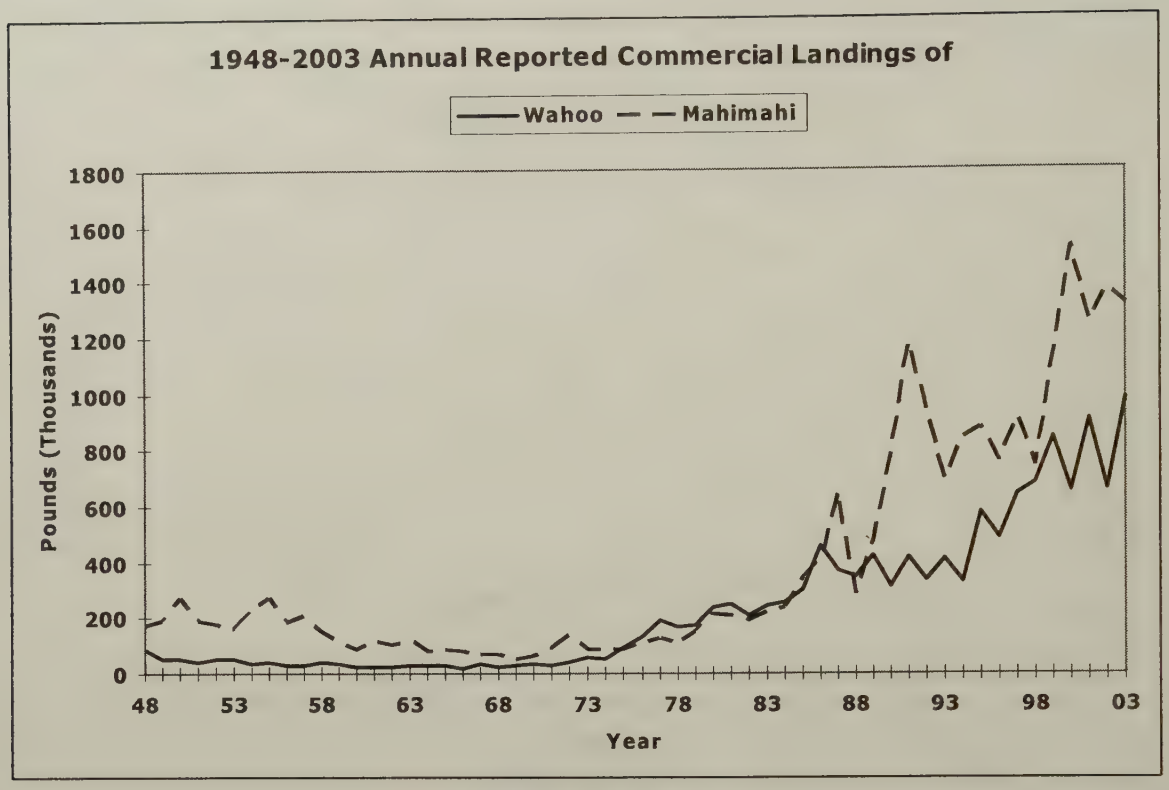


Figure D-3-4

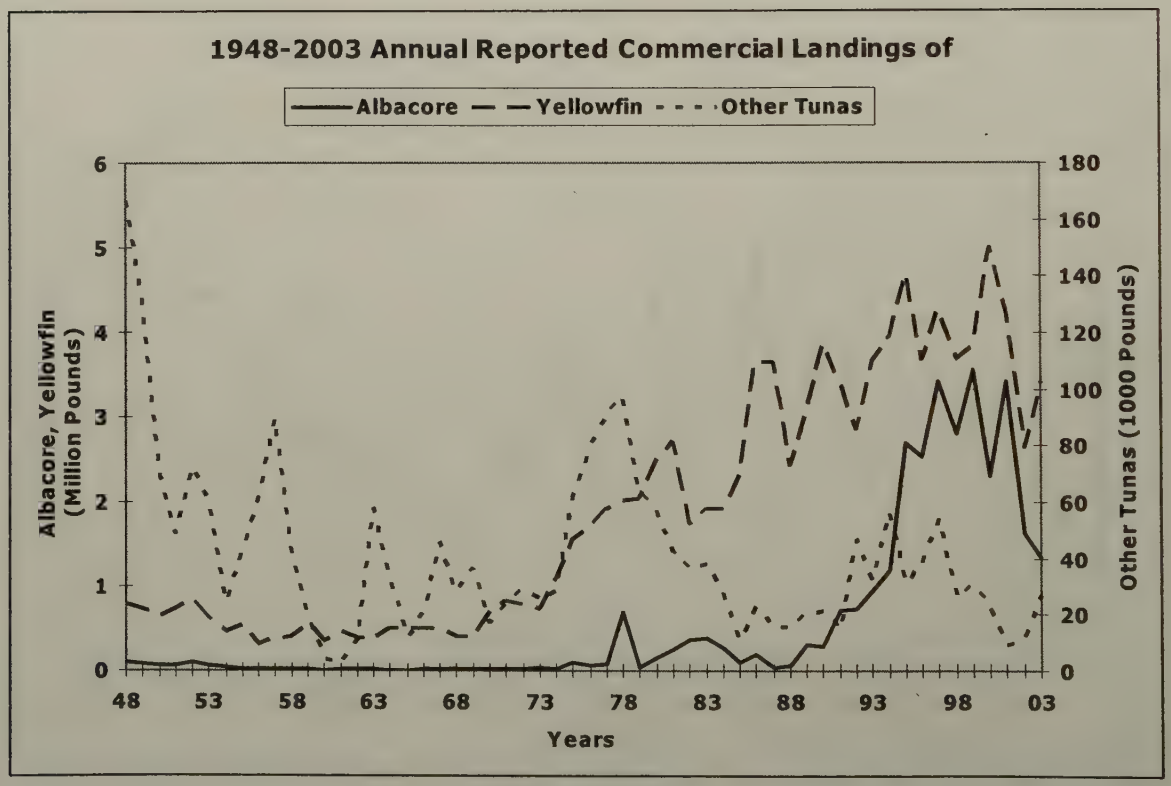


Figure D-3-5

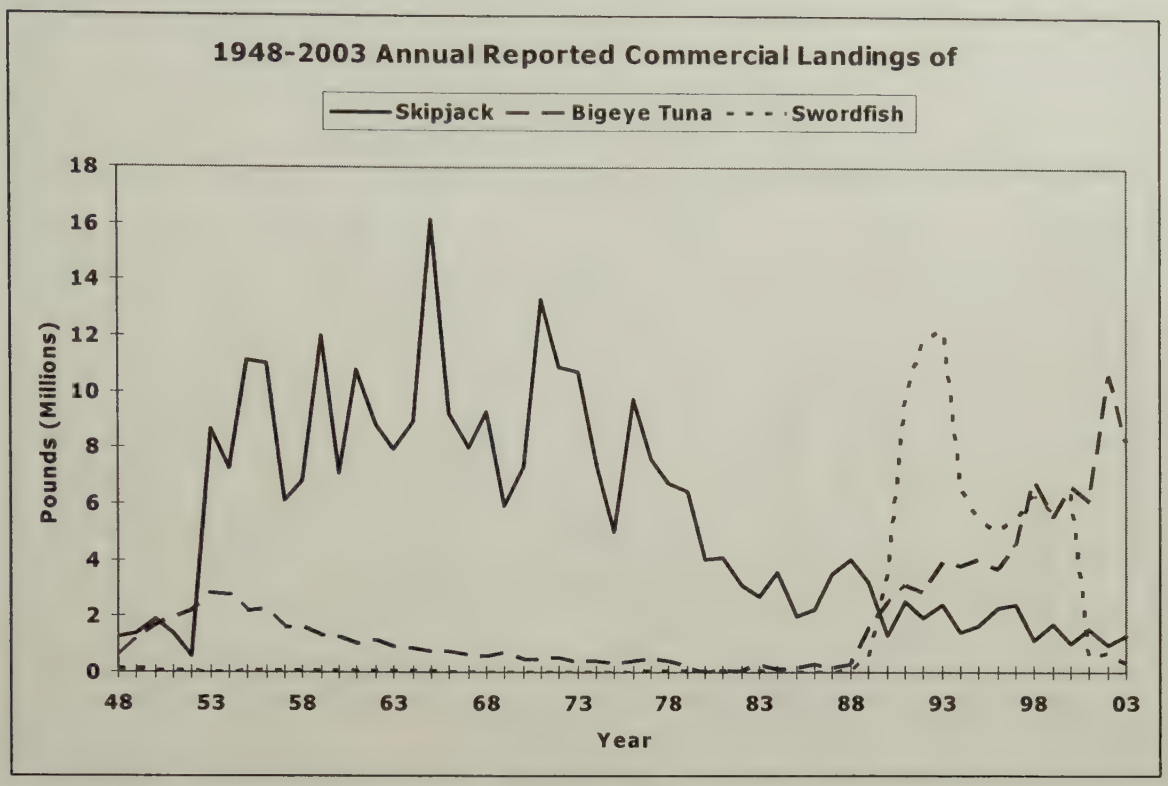


Figure D-3-6

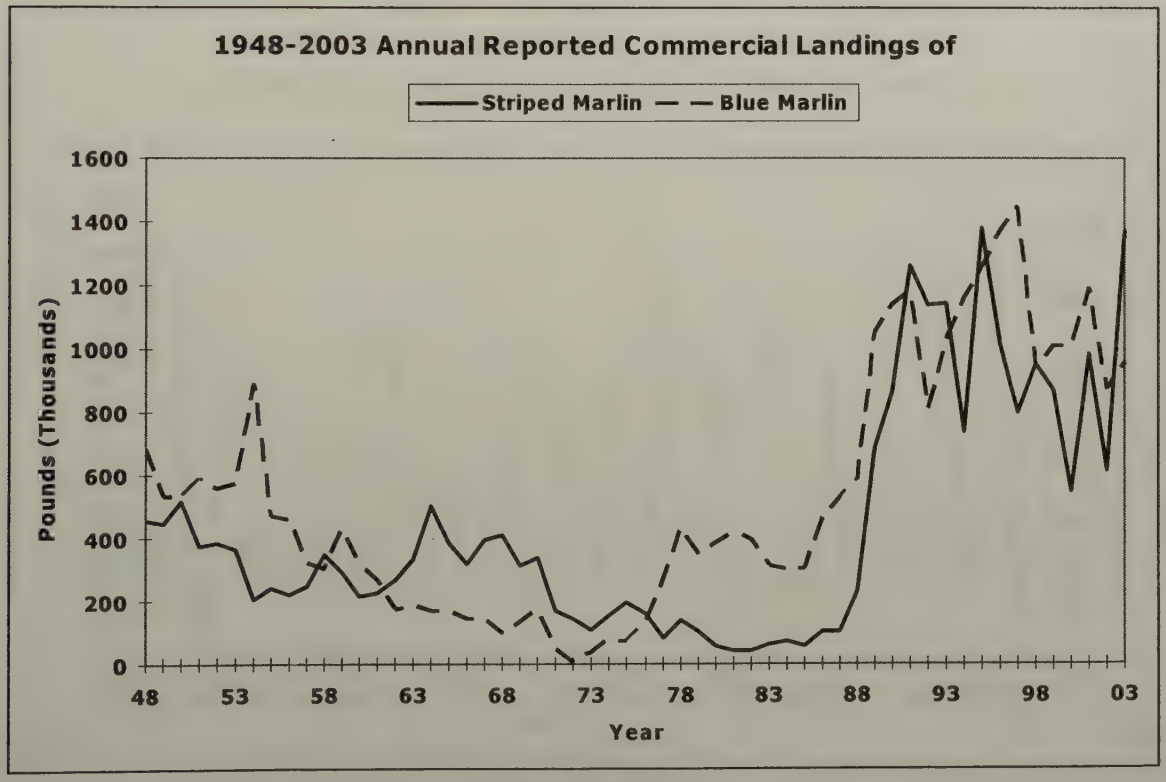


Figure D-3-7

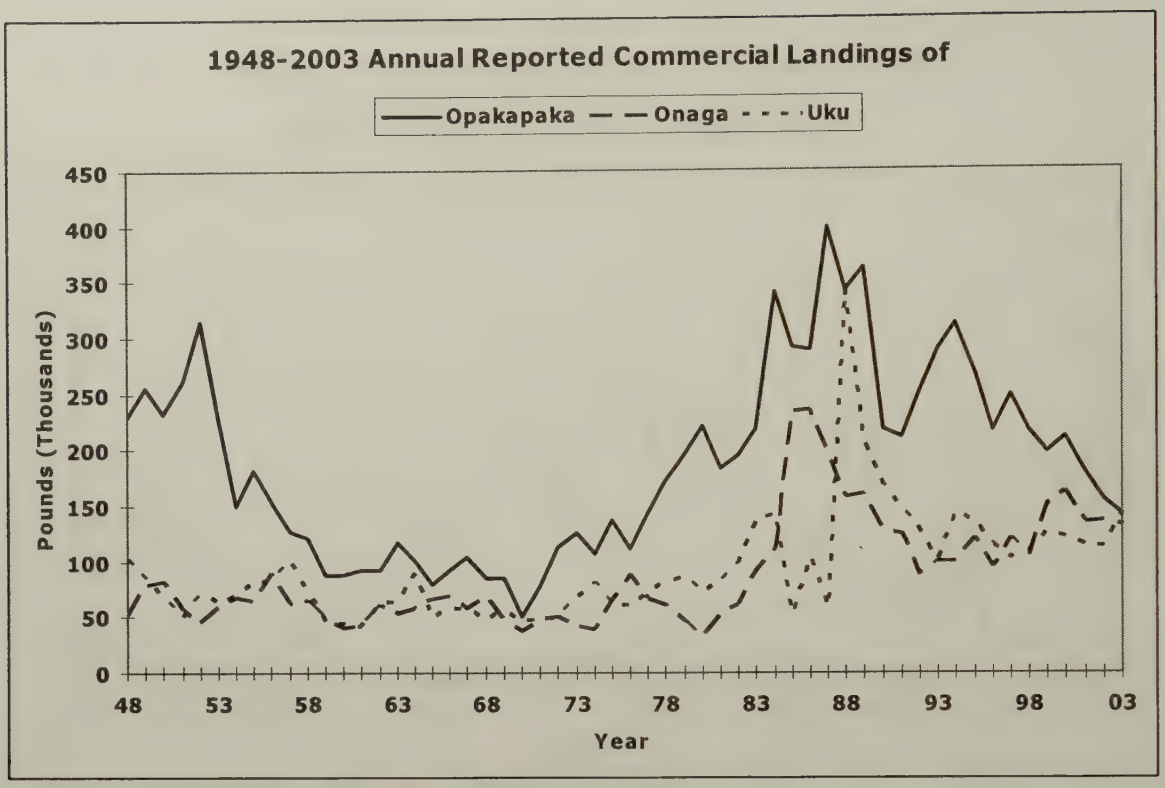


Figure D-3-8

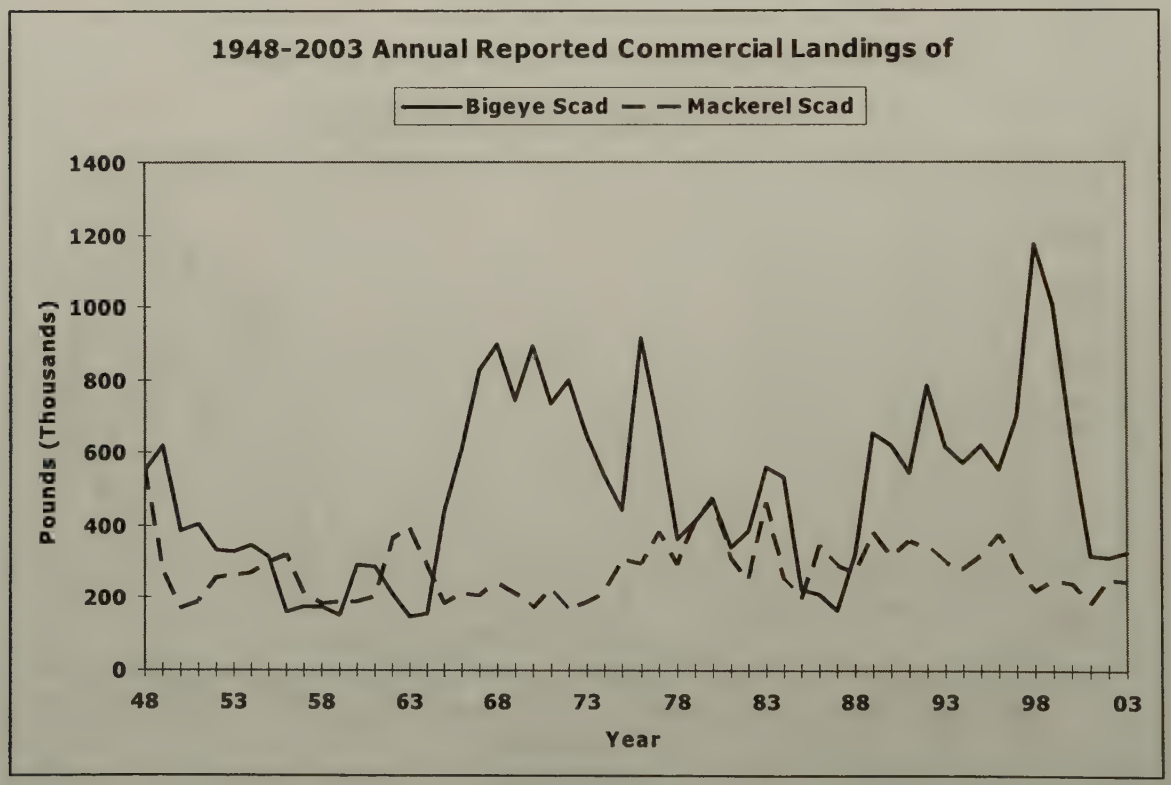


Figure D-3-9

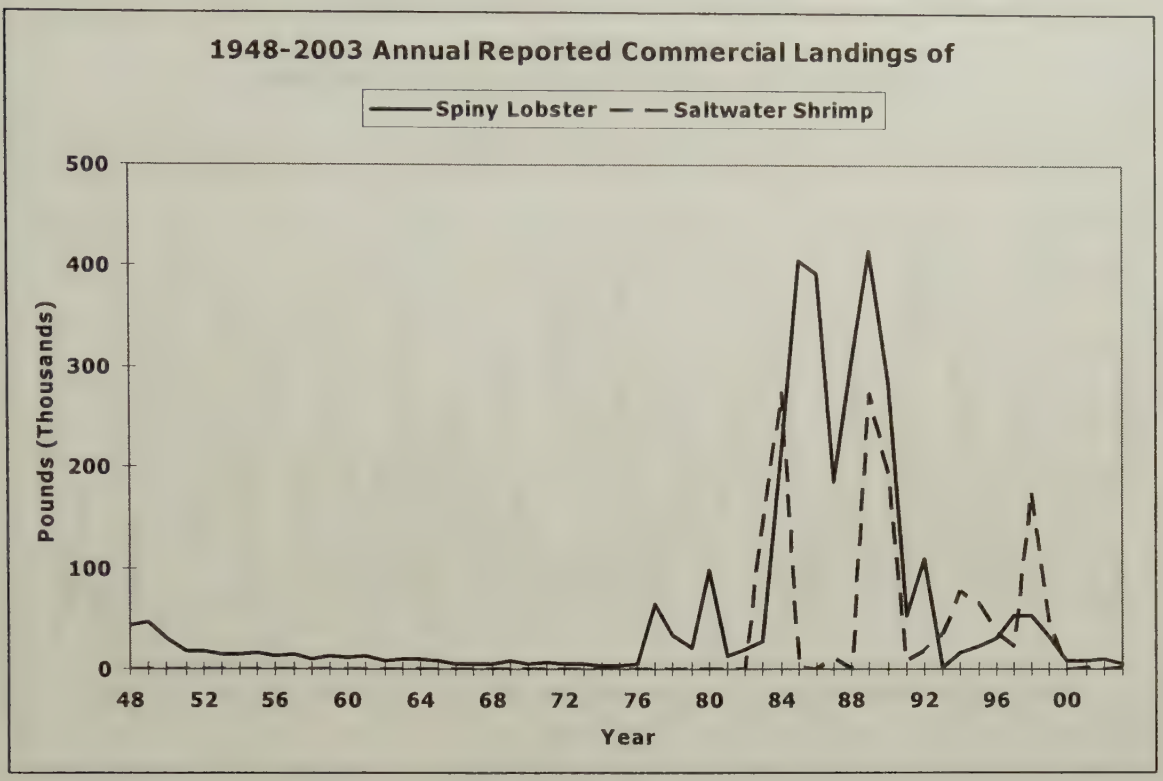


Figure D-3-10

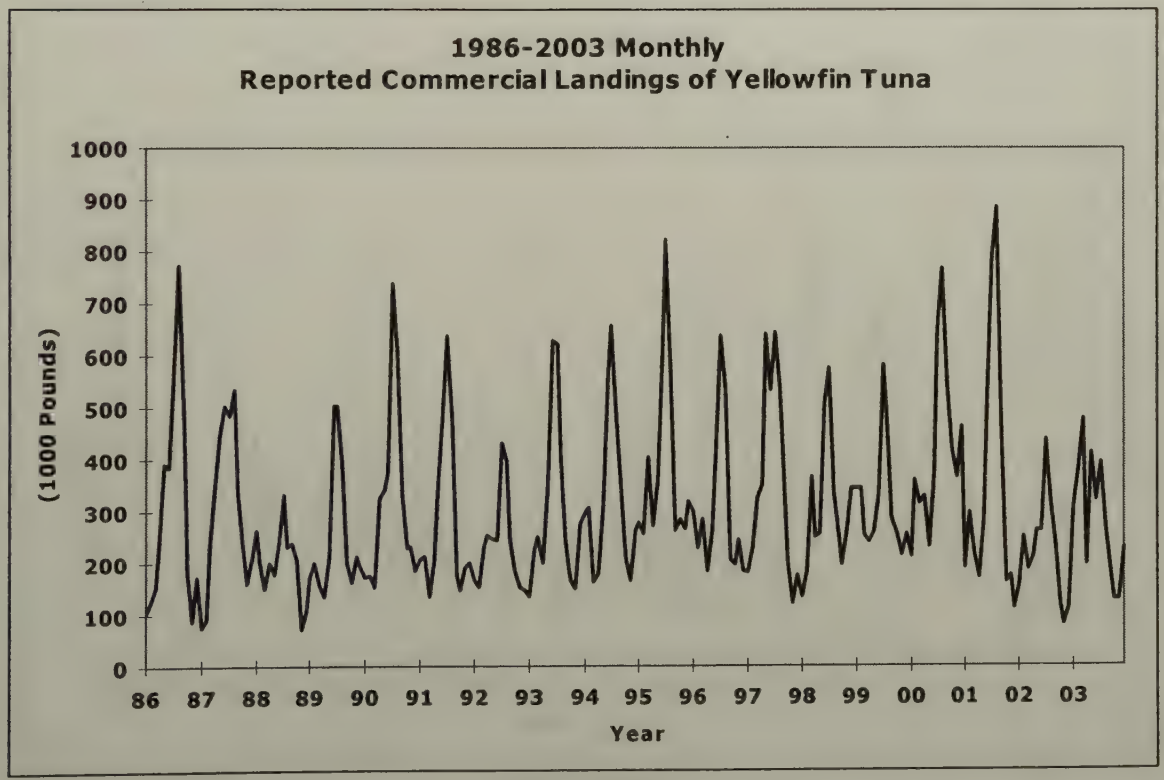


Figure D-4-1

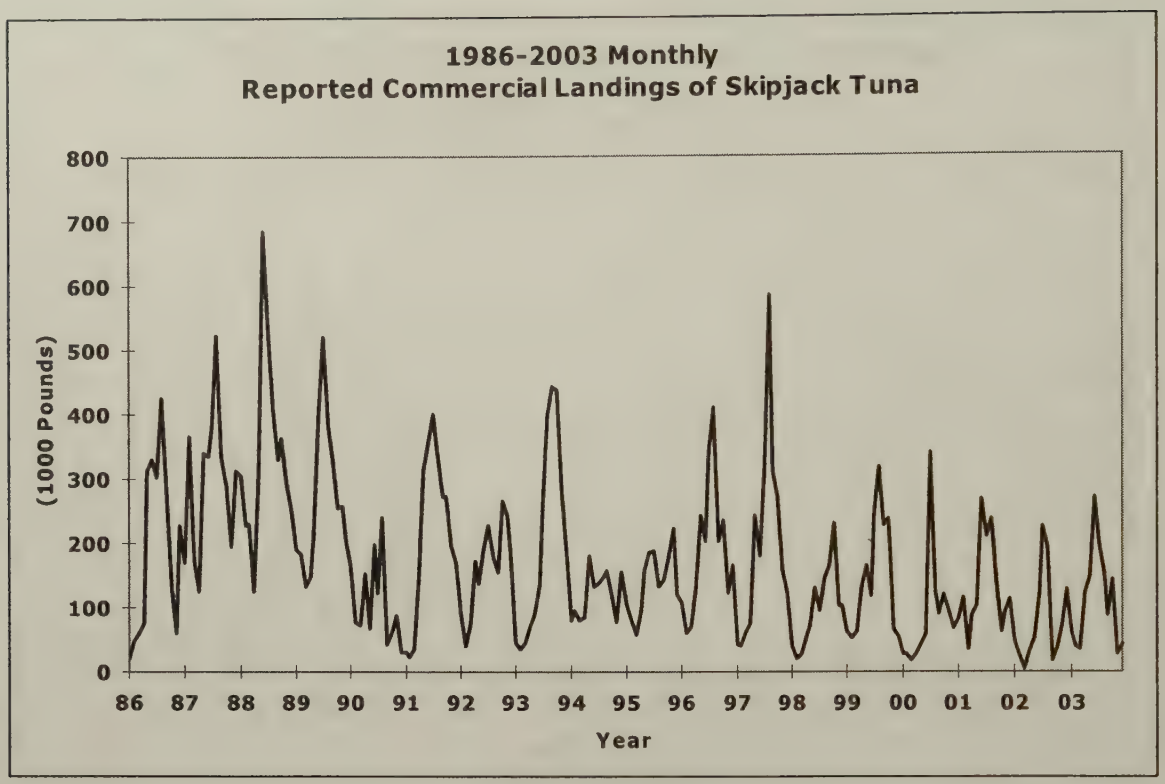


Figure D-4-2

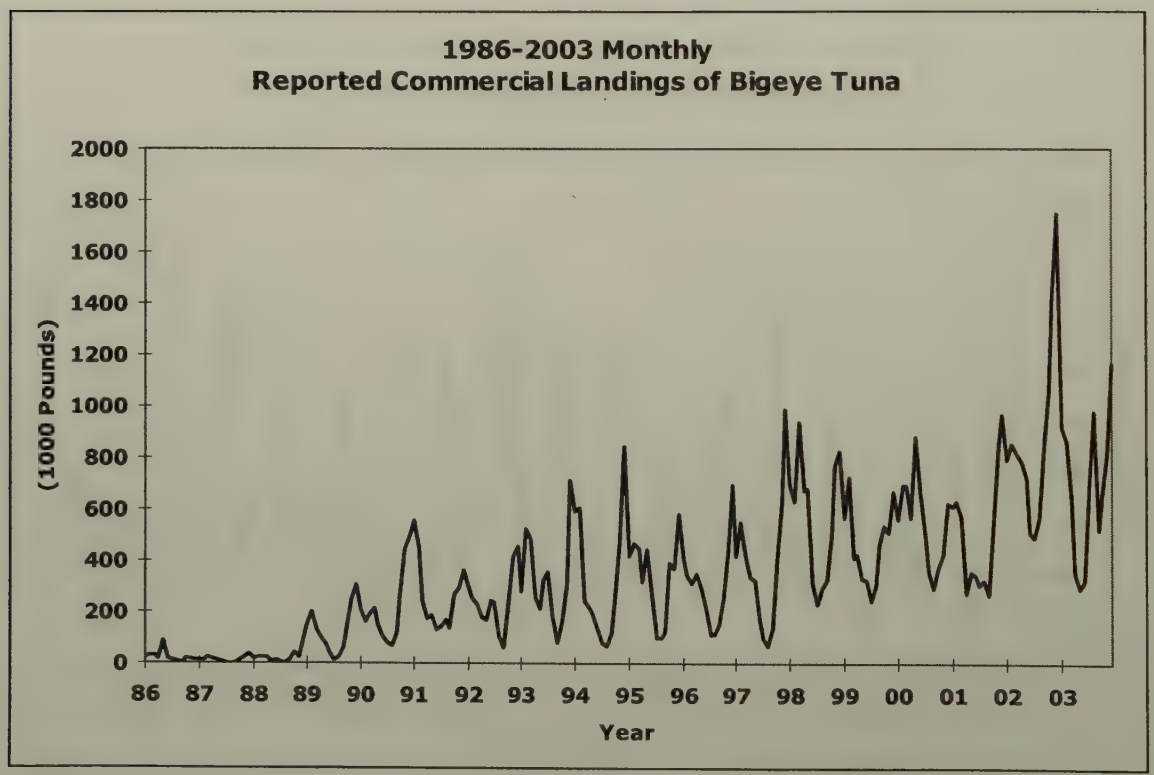


Figure D-4-3

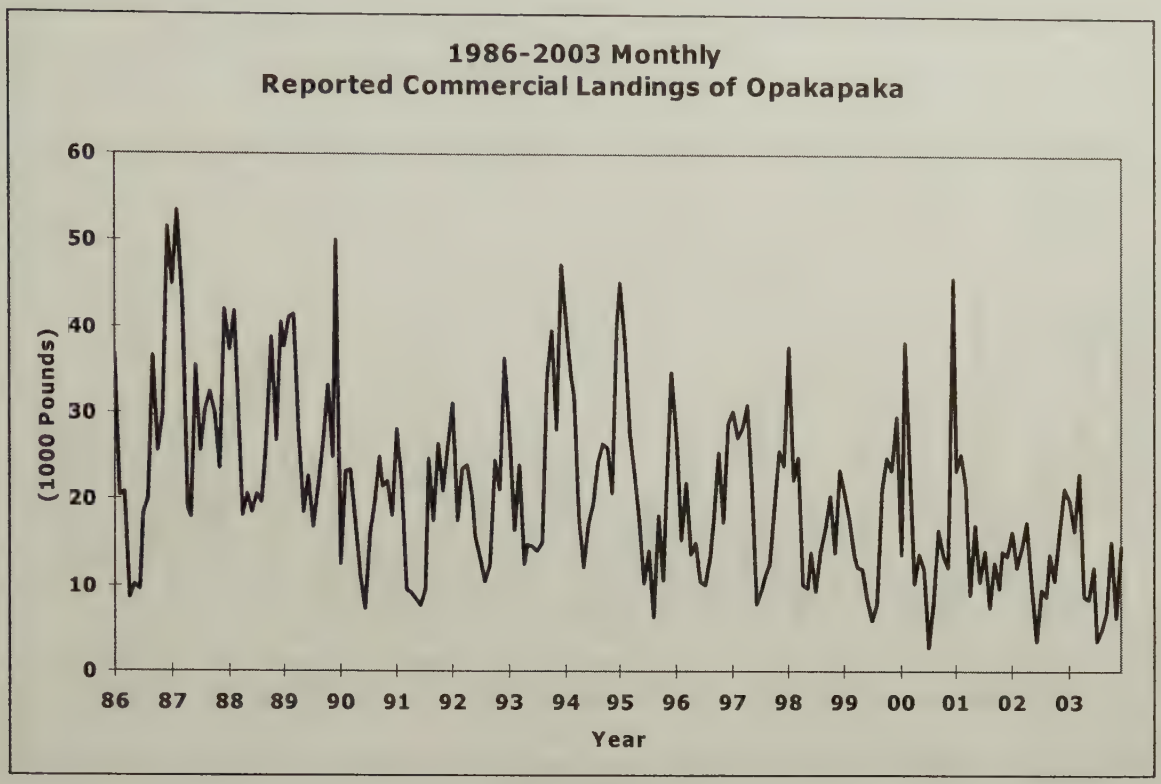


Figure D-4-4

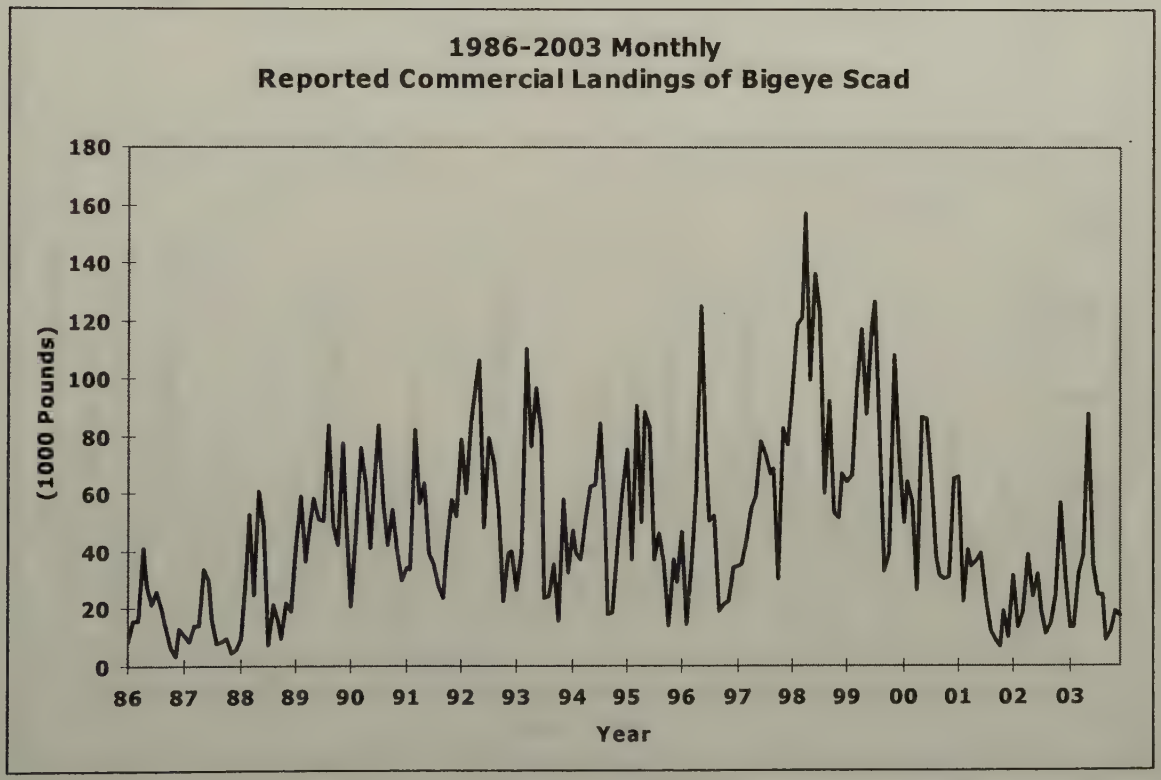


Figure D-4-5

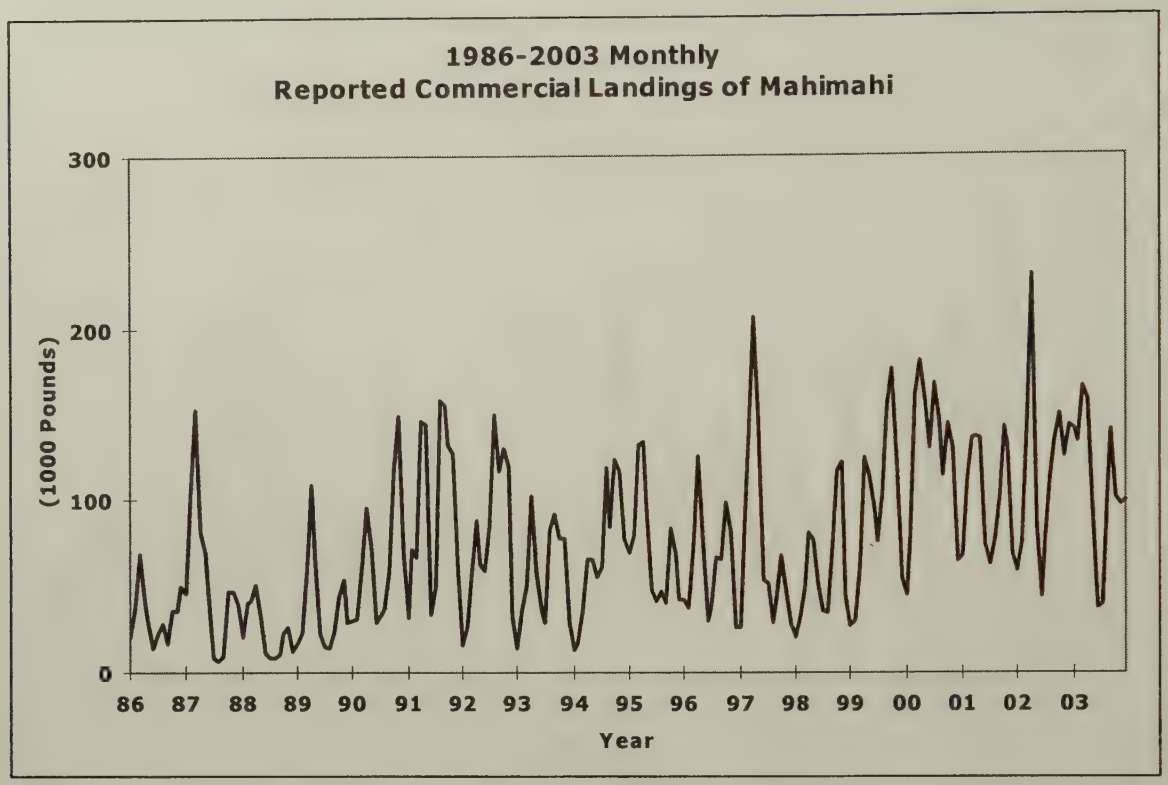


Figure D-4-6

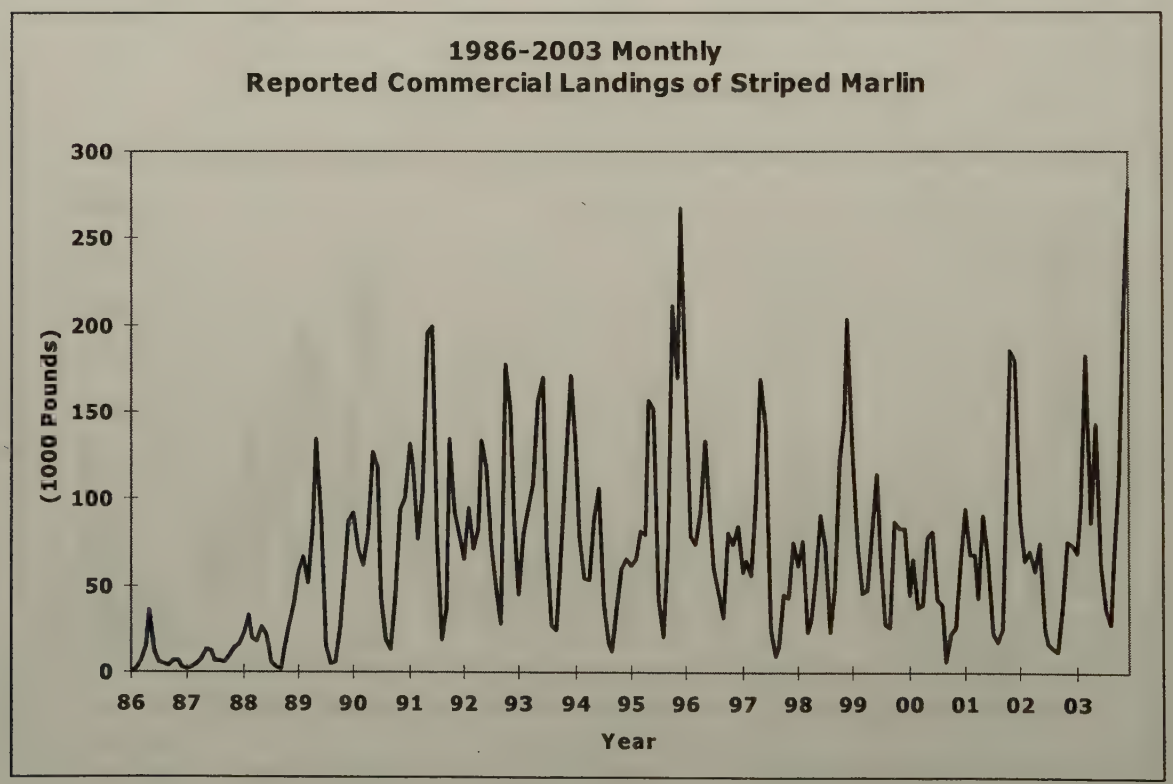


Figure D-4-7

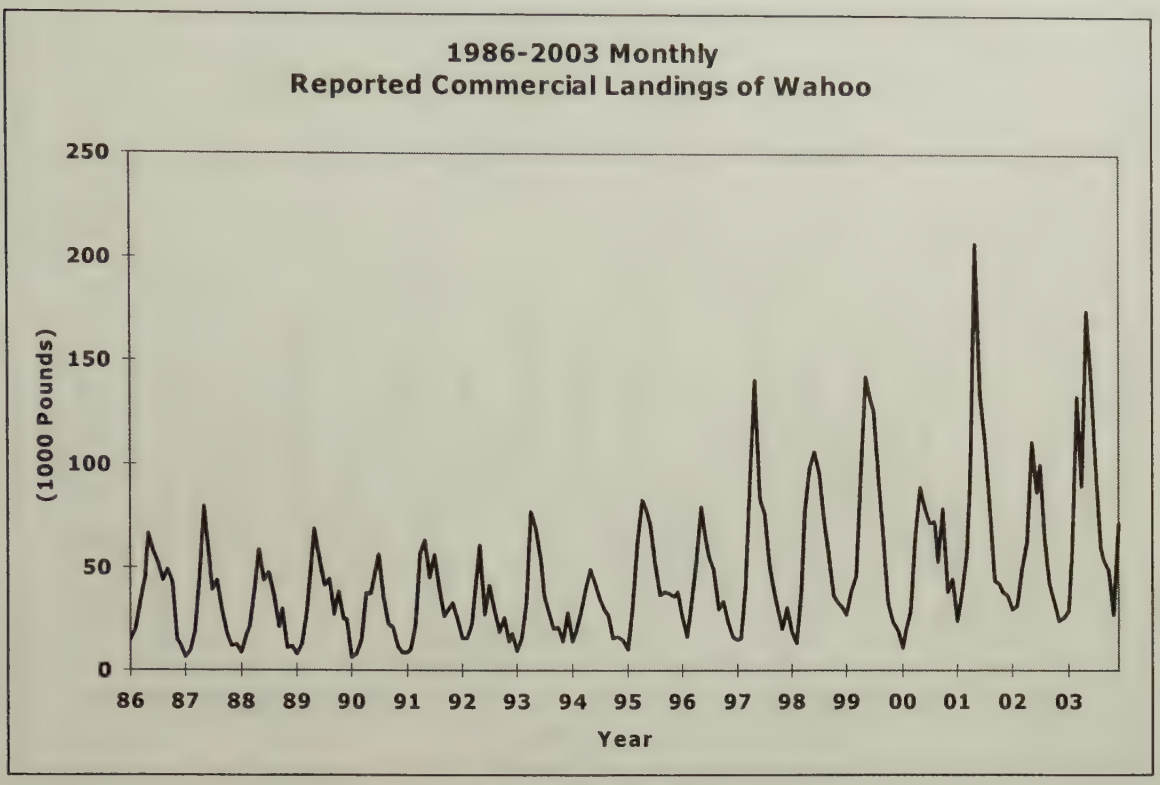


Figure D-4-8

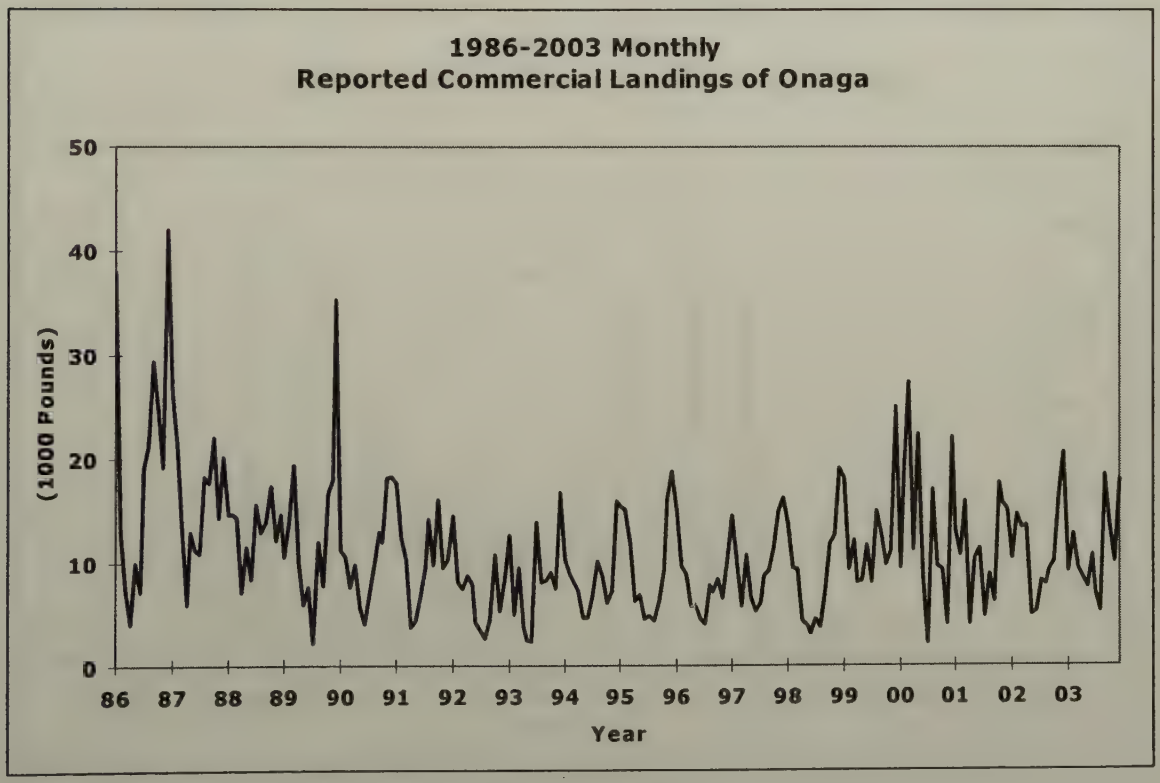


Figure D-4-9

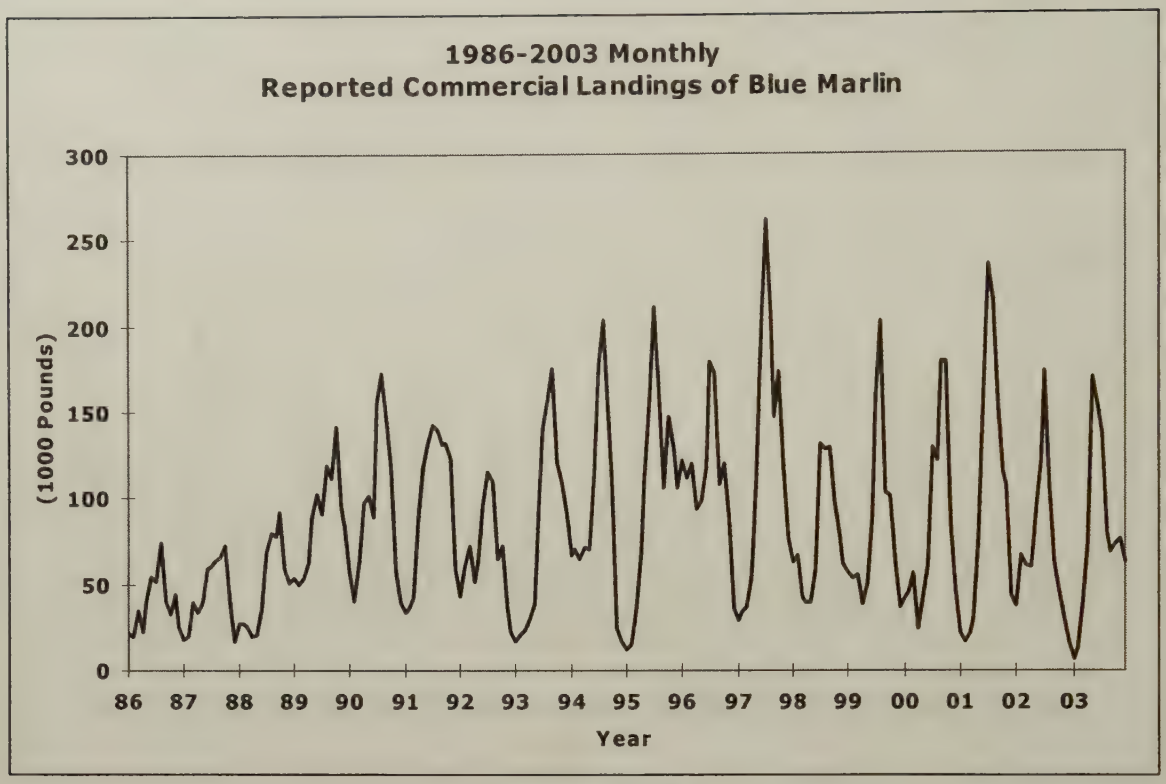


Figure D-4-10

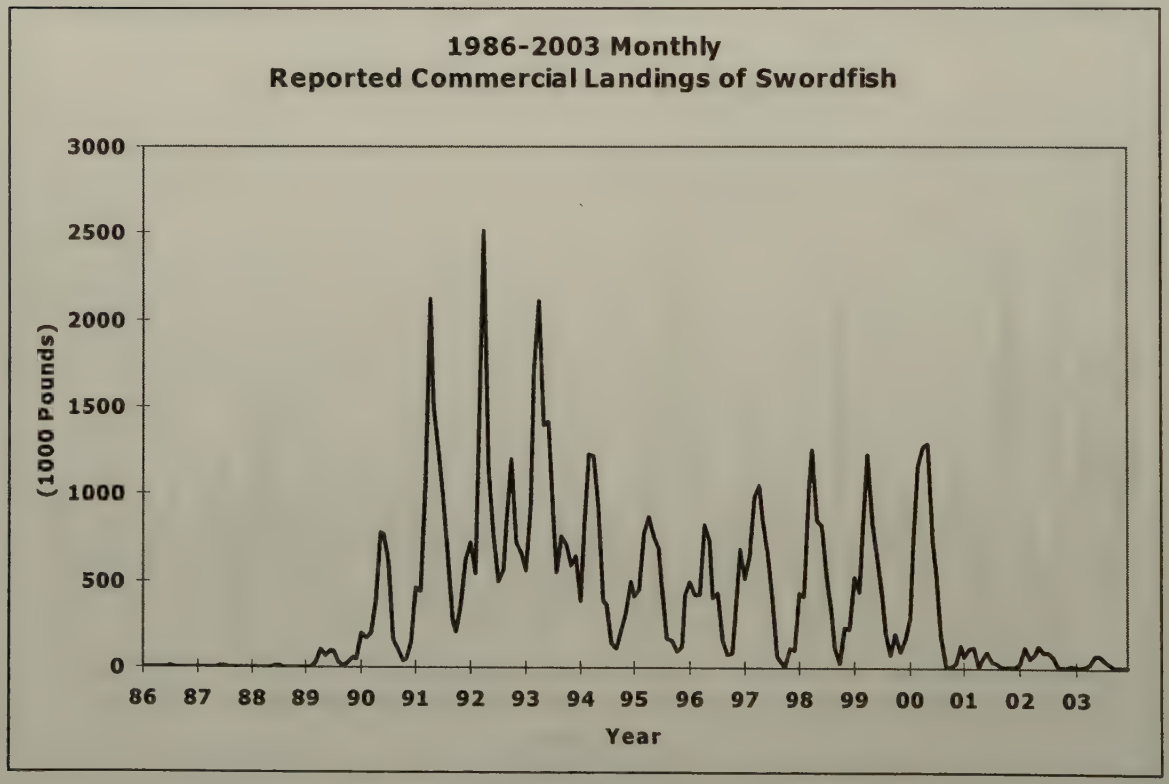


Figure D-4-11

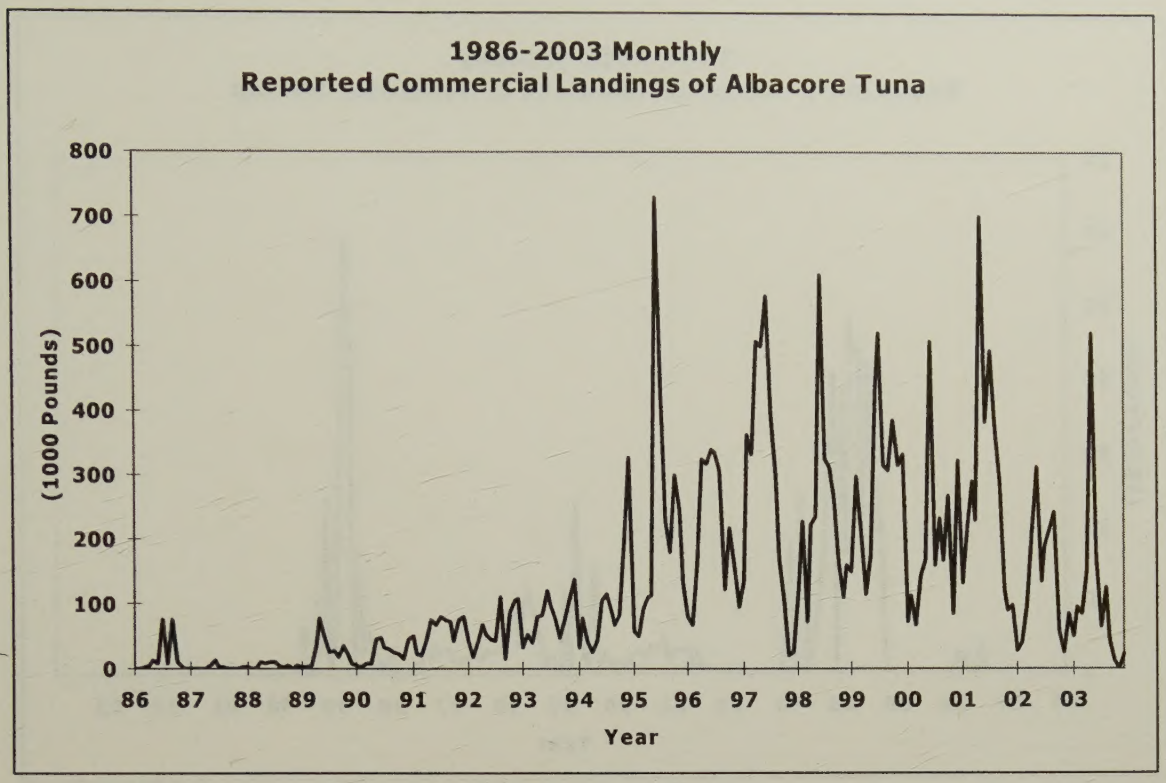


Figure D-4-12

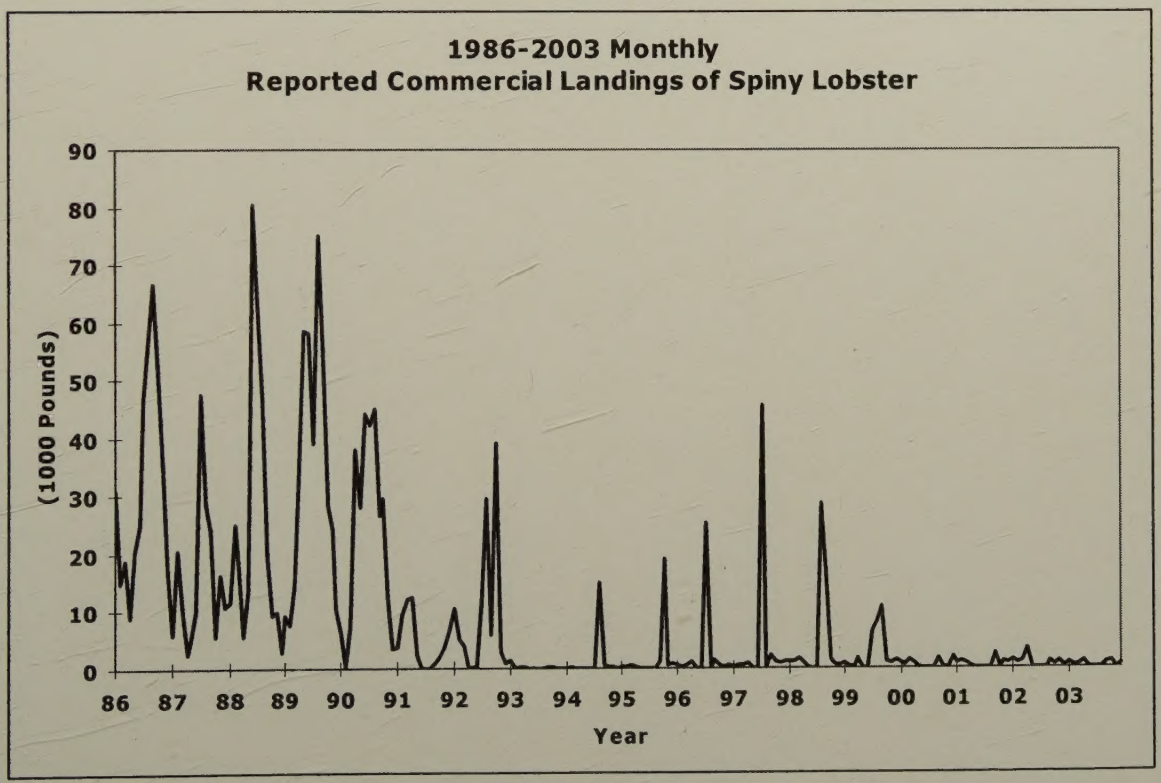


Figure D-4-13

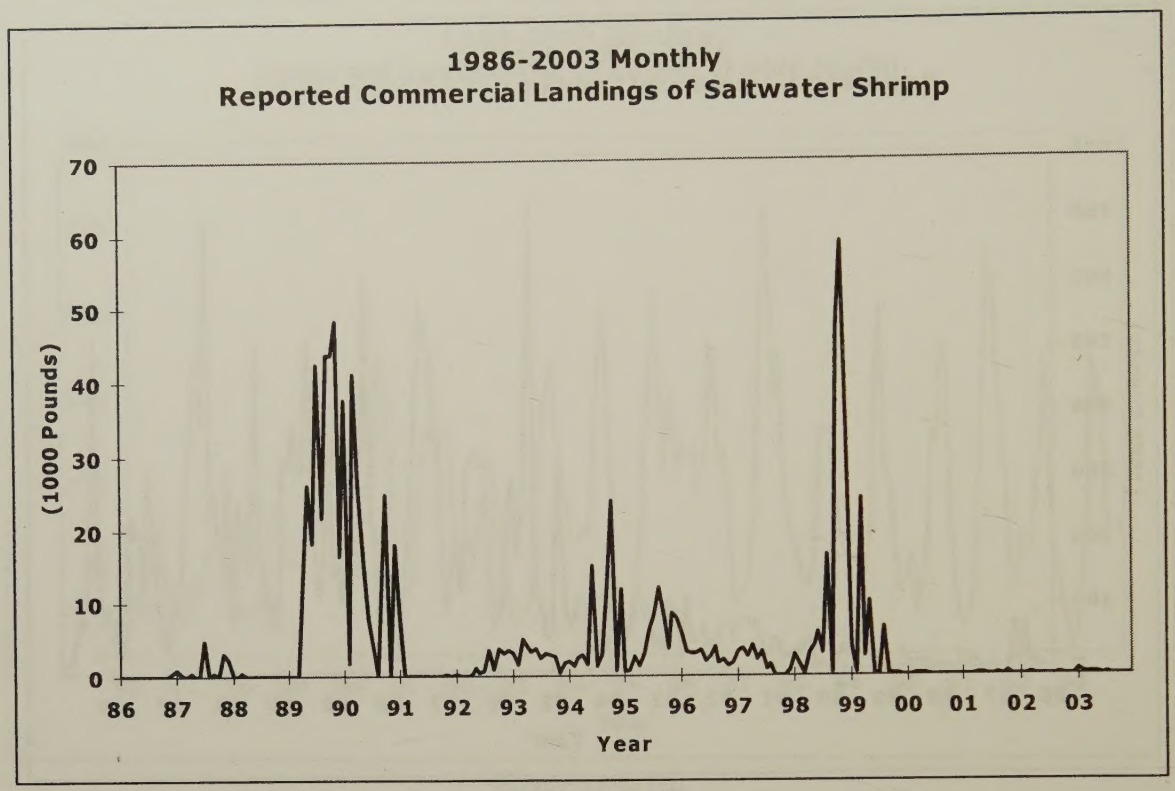

1986-2003 Monthly
Reported Commercial Landings of Saltwater Shrimp
(1000 Pounds)
70
60
50
40
30
20
10
0
86
87
88
89
90
91
92
93
94
95
96
97
98
99
00
01
02
03
Year

Figure D-4-14